

THE AMERICAN FARMER RURAL REGISTER.



"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." Virg.

NEW SERIES.]

NOVEMBER, 1873.

[VOL. II—No. 11.]

PUBLISHED BY

SAML. SANDS & SON,

No. 9 North street, Baltimore, Md.

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[ESTABLISHED 1848.]

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JOSHUA HORNER, Jr.

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The Value of the Clover Plant.

In our remarks upon the cultivation of *wheat* in our August number, we incorporated some views of Prof. Voelcker, of England, on the supply of ammonia to that crop through the medium of the clover plant. His position, as was shown in the same paper, was confirmed by the figures furnished in the analysis of Dr. Lee. We again refer to the statements there made, and ask the attention of intelligent readers to the facts presented as worthy of their serious consideration. Ammonia is one of the three or four components of a perfect manure, and is decidedly the most costly of all others, and is now generally supplied for agricultural purposes, as supplemental to stable manure, by means of Peruvian guano, and if the farmers and planters of this country, and especially of the South, can procure from the cotton seed and the clover plant the means of fertilization without the expenditure of a dollar for commercial manures, the regeneration of their lands from their present depressed condition is near at hand.

The discussion of the theory of the action of clover as a fertilizer having been recently entertained by a club of very intelligent farmers, whose meeting we attended, we promised to publish in the *Farmer* for this month a paper from Prof. Voelcker on the subject, in which he presents some views which, as he admits, appear paradoxical, but which he shows are not inconsistent with practice, nor, really, with the theory of chemists. Prof. V. is

not only a chemist, at the very head of his profession, but tests his theory by practical demonstrations upon his own farm, and the conclusions at which he has arrived upon the subject in hand were predicated upon experiments and observations which had occupied his time and attention for the preceding ten years. We will in our next give the result of other experiments by him, the pith of which, however, was given in our remarks alluded to, in August. These are copied from the *Gardener's Chronicle* and *Agricultural Gazette*, of England.

Prof. Voelcker's Experiments.

It is well known to most practical farmers that if they can succeed in growing a good crop of clover, they are almost certain to get a good paying crop of wheat. You see how all agricultural matters depend upon each other. I have come to the conclusion that the very best preparation, the very best manure, if you will allow me thus to express myself, is a good crop of clover. Now, at first sight nothing seems more contradictory than to say that you can remove a very large quantity of both mineral and organic food from the soil, and yet make it more productive, as in the case of clover. Nevertheless it is a fact, that the larger the amount of mineral matter you remove in a crop of clover, and the larger the amount of nitrogen which is carried off in clover hay, the richer the land becomes. Now here is really a strange chemical anomaly, which cannot be discarded, and invites our investigation, and it is an investigation which has occupied my attention, I may say, for more than ten years. This clover investigation has very much interested me for a great number of years; but only during the last season have I been able to bring it to anything like completion, so as thoroughly to ex-

plain the strange anomaly that is presented to us in the growth of clover as a preparatory crop for wheat. The explanation is very simple, though puzzling when you know not the chemical points that are involved in the investigation. I cannot deny myself the gratification of showing to you in a few figures that, in a thorough chemical point of view, clover is the most exhausting crop that you can possibly grow, while in a thorough practical point of view it is the most restorative crop, and the best preparation for wheat that you can possibly grow. Now if we examine what is taken from the land in the shape of clover, we shall find that, assuming an acre of land to yield four tons of clover hay, these four tons of clover hay will remove 672 pounds of mineral constituents, and not less than 224 pounds of nitrogen, which is equal to 272 pounds of ammonia. Four tons of clover hay, the produce of one acre, must contain a large amount of nitrogen, and remove from the soil an enormous quantity of mineral matters abounding in lime, potash, and also much phosphoric acid. Now comparing what is removed by a crop of wheat, we find that, in a clover crop, we remove fully three times as much of mineral matter, and a great deal more, six times as much, I believe, of nitrogen, as we do in a crop of wheat. The total—to give the exact figures—of mineral matter removed in an average crop of wheat, amounts to 175 pounds an acre—that is, taking in both the grain and the straw; the total amount of nitrogen removed in the grain of wheat amounts to only 26.7 pounds per acre, (not quite 27 pounds,) and in the straw of wheat 19.2 pounds, or in both together 46 pounds of nitrogen, which is only about one-fifth of the nitrogen contained in the produce of an acre of clover. We should, therefore, naturally expect that clover, which removes so much more nitrogen from the soil, would be greatly benefited by the application of nitrogenous manures; but the reverse is the case. Wheat it is well known, is benefited by the application of nitrogenous matters, but clover is not. On the other hand, clover is benefited by mineral manures, and at the same time it leaves the land in even a better condition in this respect for the succeeding crop than it is without the intervention of clover. I believe a vast amount of mineral manure is brought within the reach of the corn crop by growing clover. It is rendered available to the roots of the corn crop, while otherwise it would remain in a locked-up condition of the soil, if no recourse were had to the introduction of the clover crop. Clover, by means of its long roots, penetrates a large mass of soil. It gathers up, so to speak, the phosphoric acid and the potash which are disseminated throughout a large portion of the soil; and when the land is plowed the roots are left in the surface, and in decaying they leave in an available condition the mineral substances which the wheat plant requires to enable it to grow. Although in clover hay these mineral matters are removed in great quantity, yet the store

of mineral food that we have in six or twelve inches of soil is so great that it is utterly insignificant in comparison with what remains; in other words, the quantity of mineral matter which is rendered available and fit for use for the succeeding corn crop is very much larger than the quantity which is removed in the clover hay. But the accumulation of nitrogen after the growth of clover in the soil is extremely large. Even when the clover crop is insignificant, a large quantity of nitrogen amounting to tons is accumulated in the surface soil, and the better the clover crop the greater is the accumulation of nitrogen. In one of my experiments I tried to determine the amount of nitrogen which is left in the portion of a field when the clover was, comparatively speaking, poor; and I found that on the brow of the hill in that field (for it had a considerable declivity,) the clover was weak, the produce to an acre being 1 ton 11 cwt. 99 lbs., while at the bottom of the hill, where the clover was stronger, there being more soil, it was 2 tons 2 cwt. 61 lbs. Observe, too, that at the bottom of the field the wheat was always better. Now, it is in virtue, I believe, of this nitrogen that the wheat grew so much more luxuriantly.

A Letter from Mr. Meehl.

Southern planters are being fully awakened to the great value of a source of manure, found on every estate, the use of which has been too much neglected heretofore,—*Cotton Seed*. The suggestions in the following letter from Mr. Meehl, to the *Rural Carolinian*, contains some hints to others beside cotton growers, and we commend them to the attention of farmers generally:—

"A very intelligent and successful American agriculturist from near Charleston recently visited this farm and said, 'I am requested to ask and report upon my return your opinion about phosphate of lime, ammonia, lime, &c. We find that we can grow the cotton plant as a shrub, but it does not seed and produce cotton as abundantly as it used to do.' I replied, 'That does not at all surprise me, for you formerly wasted your cotton seed, and allowed it to rot in great heaps unused and not returned to the land; and now that cotton seed is found to be useful as oil and cattle cake, you export it to this country. How, then, can you expect to grow cotton seed (which means cotton too) after having exhausted the land of the elements which form it?'

It is much the same on many farms in this country. Farmers are not allowed to sell straw, so they can always grow straw; but as they are free to sell corn, and too often omit to return or replace its elements, their crops of grain are woefully deficient. Tell your countrymen, with my good wishes, that if they will fatten plenty of animals on cotton

seed cake, Indian corn, &c., they will soon find that they can grow cotton as well as cotton shrubs, and they need not trouble their heads about ammonia, potash, phosphate of lime, &c.: for the manures produced by such feeding contains all these elements in proper proportions, and in the best form; but then let them take care that their animals are placed on a paved floor, or some place where none of the urine is wasted or washed away, for that contains most of the grain or seed-producing elements. On my farm none of this is ever wasted, but it all goes into the land, and therefore I grow plenty of grain as well as straw. It is because none of the urine is wasted that the sheep-fold is found by every farmer the most certain grain producer, especially if these sheep are fed with linseed, cotton or rape cake, which are rich in grain or seed-producing elements.

Nothing robs the land so much as selling off the seed of flax, hemp, cotton and rape. I do not mean selling the extracted oil, which is permissible and not injurious, but the cake after the oil has been expressed contains the important elements. I often ask, 'How much cake do you consume, and how many quarters of beans?' and, according to the reply, I can form a tolerably correct estimate of the production of the farm, always assuming that the land is drained and deeply and cleanly cultivated. Said an American farmer to me the other day, 'Our land in Massachusetts, once so fertile, won't grow wheat at all now, for we have exhausted all its elements by constantly cropping and selling off, so that we are thinking about restoring to it the necessary elements by proper manuring.' It is the same with land as with a purse of money, always taking out and omitting to put in soon makes it empty and unprofitable.

J. J. MECHI.

Tiptree, England, Aug. 1873."

M. VILLE'S TREATISE.—This work, translated from the French, is reviewed in the Agr. Report for 1872; the reviewer thinks that the cost of the chemicals recommended by M. Ville will be found too great for general adoption by American farmers, and adds:—

"It will be remembered, however, that these estimates are made for soils that are completely exhausted; a condition in which, fortunately, but few of our American fields are found. We may, therefore, safely reduce the quantity per acre in proportion to the elements of fertility already in the soil. Scarcely an instance will occur in our country where it will be necessary or proper to depend exclusively on artificial manures. If due care be observed, the stable and barn-yard will always furnish the chief supply of manure to the American farmer, and chemical manures will be used only as auxiliaries to supply the mineral elements lost in the grain and other products sold from the farm. Used for this purpose, and in conjunction with barn-yard manure, the cost of chemical fertilizers necessary will be greatly reduced."

Agricultural Calendar.

Work for the Month—November.

It will be profitable for the husbandman now to consider both what he has done and what remains to be done before the winter, which is near at hand, closes in upon him. Of the work still to be accomplished it becomes him to take hold with all energy, in order that he may not have the dissatisfaction and the loss of finding himself so far behind that he cannot repair the evil till the advent of spring.

Accumulating Substances for Manure.

—This work is always of prime importance, and from now till spring should receive the attention it deserves. Offal of all kinds, wasting substances which are found on or near the farm, leaves and mould from the woods, marsh mud and muck, in short, all materials of every character which can, by decomposition, be made to increase the compost heap, should be, from time to time, gathered together and used in the mode we have heretofore pointed out for the enlargement of your supplies of plant food. Manure from the stables may be hauled out and spread whenever the weather will allow. With many farmers this mode of applying manures, especially to grass land, is preferred to any other.

Fall Ploughing.—Stiff clays should be ploughed, if possible, during the fall or winter, so that they may receive the advantages of the influences of winter upon them, and the work should be proceeded with whenever practicable.

Live Stock.—*Cattle.*—It is to your advantage, if they are worth keeping over the winter at all, that they should be well wintered, and the first step to this is, that they be not allowed to fall off at the very beginning. All the extra feed which can be now put into milch cows and growing calves will at some time not remote return you a profit. The pastures are of course running short, and a mess of meal or middlings at night, with hay or stalks, will not come amiss. Do not allow your cows to be exposed to cold rains, and if possible give them the shelter of a shed or stable at night.

Sheep.—Some provision ought to be made for keeping these dry and warm. They ought also now to be allowed some hay and a little grain or bran. Do not neglect to salt them regularly and give them a chance to go on the pasture every day, no matter how cold the weather, so it is dry.

Horses.—Endeavor as far as possible not to expose them to cold storms. Feed well and regularly; give comfortable quarters, and do not fail to see that they are properly rubbed down and cleaned when coming in from a day's work on muddy roads. Humanity to working animals is repaid by actual returns as well as by a clear conscience.

Swine.—Young pigs which are to be kept over should be pushed ahead; and for breeding sows such should be retained as are well made and of good size. A thoroughbred boar, if not already used, would be a good investment, and the improvement in the first litters would pay his cost.

Fattening Hogs.—Give these good dry quarters, with plenty of bedding, which should be removed as often as necessary. Keep in their pens rotten wood or charcoal and give them occasionally a little ashes, salt and lime, mixed in with some of their food. Give them fresh water and forward their growth as much as possible. The earlier they are ready for the knife the more profitable, generally, they will be found.

Cornstalks ought to be housed as soon as possible. Hay will be scarce enough this winter to warrant these being properly saved.

Root Crops.—Mangel Wurtzels and Sugar Beets should be harvested at once and put away in cellars, pits or trenches. Ruta Bagas and Flat Turnips may remain out longer. The former are not much hurt by even very hard frosts. Potatoes ought to be gotten out as soon as possible.

Fences and Gates.—Look over these and have repairs, when needed, made at once. If possible substitute *gates* for *bars* wherever the latter remain. The saving of time will soon repay the cost.

Tools and Wagons and Gears.—Examine these and have needful repairs attended to at once. Such as will not be in use again before the spring, have put away under cover where they will be protected from the weather. Leather should be greased before putting away for the winter; and all tools ought to have their wood work painted and the metal rubbed over with kerosene oil.

Fire-wood and Fencing.—Provide supplies of the former at least before the roads become too bad for hauling. Now is a good time to cut your posts and rails.

Planting Orchards.—It is not too late yet in most parts to attend to this work, of which we have spoken heretofore sufficiently at length. We here only remind our readers of the importance of supplying on every farm an orchard of good fruit. It adds ten-fold the cost to the value of the farm.

Correspondence.

Our Monetary System—the Terrible Crash.

TO DAN'L C. LONDON, Esq., N. Y.

My Dear Sir: I duly received your pamphlet, entitled "The Exchequer, explained in a series of letters," &c., on which you desire the criticism of your friends. Our correspondence for the last two years will satisfy you that I heartily concur in the main objects which you have in view, though I have not hesitated to express with candor my strong objections to parts of your plan. That correspondence and a series of articles published by me in the American Farmer, of Baltimore, which you have read, have placed you in possession of my general views, although you say in your last letter to me, that I have not proposed any practical remedy for the evils complained of. It is true I have not entered into details, yet I do not think a gentleman so well informed as yourself can be at a loss, after a careful reading of my writings, to understand what remedy I would propose. In discussing the resumption of specie payments, I purposely abstained from entering into the inquiry as to the *time* and *mode* of resumption. Knowing that nothing could be done until the meeting of Congress, and believing that the season was not propitious, especially in my own State, where a heated political election is pending, for the calm consideration of great questions, which of all things, I desired should be decided by the country uninfluenced by party feeling, I postponed the discussion until the proper time should arrive. That period is near at hand, and I hope soon to be able to redeem my pledge, and to find some suitable channel, through which to reach not only the farmers, but the public mind generally. Surely the whole press should be freely thrown open to inquiries upon such important subjects, yet for reasons which I will not undertake to designate, it has maintained a studied silence, and there are no matters of general interest, in regard to which ignorance among all classes is so universal and profound.

I have no objection to your Exchequer, except to the name. I should greatly prefer to call it a National Bank, or Bank of the United States. Under this name it was familiar to the whole country, and in former times was approved as necessary and proper as a fiscal agent of the government, and therefore as constitutional, by the leading statesmen of all political parties; and admirably performed its functions until, unfortunately, it became involved in political contests. I know that there is a deep-rooted prejudice in the public mind against such an institution. Yet the prejudice would be equally great against an "Exchequer," as was shown during Mr. Tyler's administration by the flood of ridicule poured out on all *financial*

ties, as a substitute for a National Bank. In the present condition of the country, I think such an institution will be found absolutely necessary. It is difficult to perceive how specie payments are to be resumed and maintained, and the public credit restored without it. It is most humiliating to a patriot to witness the condition of our country. For more than eight years a great, powerful and commercial nation has enjoyed profound peace, yet no man is wise enough to see when, under its present policy, it can resume the payment of its obligations in the constitutional currency. You ask, my dear sir, for the candid criticisms of your friends. Permit me as one of them to say, you are groping in the dark. You are not bold enough for a reformer. You must strike the cause of all our ills—our existing monetary system. So long as you temporise with that, and tolerate two thousand so-called national banks, which have usurped the place of the State banks, and which were only essayed as a war measure, and have now no color of justification under the constitution, your Exchequer and all other measures for relief will be utterly inoperative. To maintain specie payments it will be necessary to combine all the resources of the government and the people. It is believed that specie payments could never have been successfully resumed in England, after 20 years' suspension, without combining the resources of the government and the Bank, in other words, the whole resources of the country. Establish a Bank of the United States, with a capital of not less than one hundred millions of dollars, with branches; repeal the tax on currency; let the States establish their own banks; give the so-called national banks a reasonable time to wind up, and re-employ their funds, if they please, in State banks; repeal all taxes on domestic raw productions, and establish a "judicious" discriminating tariff; and my word for it, the industry of the country would bound forward with such a rush, that the coffers of the government and the pockets of the people would be soon filled, and by fixing a day for resumption when the crops are about to come forward, the transition to specie payments would be so easy and natural, that all would be astonished that there had ever appeared any difficulty about it.

If any should charge me with inconsistency as a States-rights man, in advocating a United States Bank, my answer is, that though always of that school in politics, yet I, in company with many of the most eminent statesmen of the strictest sect, advocated a bank when it was deemed *necessary and proper as a fiscal agent*. Any argument on the subject would be out of place here, and surely it is uncalled for, when the question is between one U. S. Bank and two thousand or more, which cannot be necessary or proper, and whose creation was a usurpation, and destroyed one of the most important rights of the States—the right to establish their own banks. The young men of the country have had no opportunity of examining this sub-

ject; I therefore refer them for information to Gales' History of the Bank of the United States, from which may be obtained the amplest instruction.

The country has been visited and the public interests greatly damaged by the visionary theories of those who have undertaken to be teachers of finance without any knowledge of political economy. The most extraordinary doctrines have been promulgated, even from the treasury department; and when Jay Cooke, some years ago, in a published letter revived the exploded dogma "that a public debt is a public blessing," and taught to willing hearers that government bonds constitute an essential part of the public wealth, the Pandora's box of all our ills was opened. The amount of government and railroad bonds now outstanding is estimated at about four thousand millions of dollars, on which one-half the interest, about one hundred and twenty millions, is payable in Europe in gold. Surely the most common capacity can comprehend that these obligations are a burden on the country, equivalent to a mortgage on all its property and labor. It was necessary to the public safety and the general good that the bubble should burst. Like the collapse of the balloon of Prof. Wise, it has probably prevented a greater catastrophe. I must confess that I feel little sympathy with the chief sufferers. Their inordinate avarice and vaulting ambition deserved no better fate. Cowper's beautiful paraphrase of the lines of my old friend Horace, may teach them a useful lesson for the future—

"The tallest pines feel most the power
Of winter's blasts; the loftiest tower
Comes heaviest to the ground;
The bolts that span the mountain side
His cloud-capped eminence divide
And spread the ruin round."

Your pamphlet was published before the late terrible crash. I hope it has given you new views as to our existing banking system, and has taught you that the interests of the people and the safety of the government imperatively demand its destruction. Nearly every bank has suspended even the payment of currency, a thing unheard of in the history of banking. Instead of being able to aid the government in a crisis, they are humbly suing for help at the feet of the President, crying, "Save me, Cassius, or I sink." Yet the newspapers tell you it is a "panic," and will soon be over. A panic indeed! It is the collapse of the whole system, which is rotten to the core, and every attempt to repair it will make its rottenness the more apparent. This is a most favorable opportunity for an entire change of system. The public mind is already prepared for it. Let wise men and patriots combine to make it as speedily as possible, without the needless sacrifice of any private interest, yet with the firm determination to maintain at every hazard the public good. May we hope, my dear sir, to have your earnest and effective co-operation in this noble work? I remain very truly yours,

WILLOUGHBY NEWTON.

Linden, Westmoreland Co., Va., Oct. 7, 1873.

Growth of the Tobacco Interest in Connecticut.

Messrs. Editors of the American Farmer:

As a close to the series of articles on Tobacco Culture in New England, I herewith reproduce an article written by myself, and published in the *Evening Post*, Hartford, August 7, 1872, as follows:—

"Just at what date tobacco was introduced into Connecticut we are not at present informed; but that it has been grown from an early date in the history of the State is evident from the fact that in the early ecclesiastical records, we find that in connection with certain moneys, etc., the ministers were to be allowed, or paid, a certain number of pounds of tobacco as their salary. The amount of tobacco grown, or the area devoted to its production, was small, and the number of growers few, unless we count those who grew a few plants in the garden for individual use; of these there were more, but the increase in production was quite slow till within the last 20 or 30 years, the greatest increase occurring within the shorter period. Something like 25 to 40 years since, tobacco-growing was looked upon by many in Connecticut (of a certain class) as of an immoral tendency, and one which they would not countenance either by practice or otherwise, and would not even allow it to be grown on their lands. At this time, as also for a previous period, it was customary for all farmers to grow corn and rye, as commercial crops, and these products were sold to the distillers to be converted into gin, whiskey, etc., and the consciences of strict temperance men seemed not to twinge thereat, but when it came to tobacco the case was otherwise, for a time, till the price went up from 2, 3 to 8 cents per pound. Those who grew the 'weed' always claimed that there was more money in the crop when it sold for 5 or 6 cents per lb., than in rye and corn, or other cultivated crops, and hereupon hangs an anecdote of two neighbors, one residing in the lower part of East, now South, Windsor, and the other in East Hartford, whom we will designate as O. and B. O. was opposed to the culture of tobacco, while his neighbor B. grew it in a moderate amount yearly, claiming that he made the greatest profit from his farm thereby. Nearly every time they met, especially during the summer, something must be said by each in support of his side of the question. In the course of time tobacco advanced to 8 cents per lb.; the next season B. kept a little look-out, as his neighbor O. did not have quite so much to say against growing tobacco, and about the season of the year, in passing along, he discovered on O.'s land a field set out to tobacco; reserving his fire till meeting O. one day, he says: 'Col., how's this, I thought you wouldn't have any tobacco grown on your farm?' O. replies, 'Oh! I thought I would try a small piece this year, growing grain is getting rather dull, don't find it as profitable as it used to be.' Says B. 'that's not it, I can tell you, it's the 8 cts. per

lb. the tobacco brings, that's the principle, 8 cts. per pound.' Undoubtedly that is the principal reason which has brought over to tobacco culture a great many who now grow it, to a greater or less extent, there being very few exceptions of men, yea, women too, who own farms through the valley who do not grow, or allow it to be grown on their farms. The present 'Seed-Leaf' tobacco has been grown generally only some 15 years; previously, what was known as 'Narrow Leaf,' 'Shoe-string,' etc., was the variety cultivated; that never required the nice care, etc., in producing which is requisite for the 'Broad' or 'Seed-Leaf,' or at least it never received anything like the care, etc., which is accorded to tobacco at the present; worms troubled less, and pole-burn was a thing seldom known; the tobacco was not assorted by the grower, neither was it very particular as to manuring high, very little more manure being used than was required to well fertilize a piece of corn land of equal extent, and the labor of producing two acres of corn about equaling one of tobacco. By degrees the growers informed themselves as to the better preparation and marketing of the crop, and as information increased better practices prevailed, better prices were realized, more pains were taken in all its culture and preparation for market, leading to the change in variety cultivated, and then an improvement on that, till now we have a variety which is noted far and near; yet it is not *all* in the variety, very much is due to the soil, experience in culture, etc.; and then experience has taught that heavy manuring with horse-stable manure, with a certain amount of Peruvian guano to give the plants a start in the hill, produces the finest and best quality; and also, that it is essential to bring the plants forward early, so that good strong ones may be had ready for transplanting early in June, that the crop may have ample time to mature before early fall-frosts, which often occur as soon as the 10th of September. Great pains are taken to select plants of near equal size and strength of growth in transplanting, that the field may grow and mature evenly, and when once set care is essential to keep the stand perfect and the plants growing evenly to maturity.

"Such heavy manuring as is essential for premium crops causes a rank and rapid growth in favorable seasons, so that it is necessary to plant the rows wider apart than was formerly practiced; but in order that the number of plants to the acre may be kept good they are planted nearer in the row. This closeness in planting is thought to be favorable to fineness in the grain, growth of leaf, and while the plants stand near together in the row there is a chance to go between the rows for the purpose of worming, topping, succoring, etc., up to near or quite the maturity of the crop. Sometimes the last succoring, etc., must be done from the outside as the rows of tobacco are cut, as the plants so entirely cover the ground and the leaves are so interlocked that it is impossible to go be-

ween the rows without breaking and greatly injuring the crop. Every manipulation, from sowing the seed in the seed-bed to the delivery of the crop to the purchaser, should be and is done with the utmost exactitude and care that the product may be perfect as is possible. In topping and succoring, experience has taught that a clean break or cut, not to shiver the stalk, is essential, or the stem will catch water, decay or become diseased and cause the leaves to fall; no 'priming' or pulling off of the ground-leaves is practiced, for the reason that it injures those left more than it would add to quality; the plant bleeds, and in efforts to recover takes from the plant. In topping, the judgment of the cultivator has been so educated that he is enabled at once in entering a field to determine just at what point to top, that what is left may mature, and still there be no waste in growth or otherwise. This part he has determined by experience, and it cannot be imparted or obtained in any other way; no arbitrary rules can be laid down to govern different growths, but each must be a rule to itself. If the top leaves are immature they are prone not to cure, but remain green, or dry up a mottled color; for this reason early maturity is one object, as the quality is better in all respects as a general rule; late maturing tobacco, even when not caught by a frost before harvesting, is subject to accidents after being hung, and of curing of uneven color, etc. In the matter of hanging and curing in the barn, great improvements have been made over former practices. Instead of depending upon the stables, barn-floor, over hay mows and other at present unoccupied space in farm-buildings, which are frequently needed before the tobacco can be taken down and stripped, there are now on every farm buildings with necessary conveniences and fixtures expressly devoted to the purpose, many of them comparing favorably with the best of farm-buildings, in fact often the best buildings on the farm, and of considerable cost. With the better price which the tobacco has brought the producer, there has been an increased interest in giving it more thorough culture; and better culture in one crop has begotten more thorough and better farming in other respects, and many improvements beside, till now farming lands suitable for growing tobacco have reached a price that would scare the old proprietors who occupied the same 30 or 40 years since, as also would the cost of the manure and fertilizers used per acre. Manure which could have been bought ten or twelve years since for two to four dollars per solid cord, now sells readily for twelve to fifteen dollars at the yard, and large quantities are brought from long distances at larger prices; labor which could then be had in abundance by the six months for twelve to sixteen dollars per month, is now scarce at less than from thirty to thirty-three dollars, and not as good at that; nor will they work as many hours per day as was then practiced, or perform as much labor in the same time; and with all

this, what is the result to the producer and farmer? Why, he has been enabled to 'stem' it all, pay his taxes promptly, add to his farm as necessary in lands and buildings, lay aside some money in stocks and bonds, live better, while he himself has added immensely to his labor, depriving himself of his former leisure of winter and the interim of slack work of the seasons. Now his time is all occupied from year's end to year's end in the necessary care and culture of his crops, caring for his farm and stock, hauling and accumulating manure, etc. Sometimes his last crop is not all stripped—as is the case this season—till time to set for the new crop. Ought not the proprietor who is obliged to work thus to be well rewarded? We think so, and that the successful producer of tobacco is none too well paid when he gets a fine crop, and the highest price for it.

"Go through the tobacco-growing section of the Connecticut valley, and compare the circumstances of farmers to-day with those within the memory of the middle-aged, and you will find almost an incredible alteration in their financial and other circumstances; farmers who could scarcely bring the year around square, now have money at command, have better and more expensive farm-buildings, better furnished, and, in so far as money goes, are more independent in their circumstances. So long as they depended upon grain-growing and a little tobacco, which only sold for five to eight cents per pound, they were obliged to work with the greatest economy to meet their taxes, pay their help and other necessary farm and family expenses. Then, to be sure, they had more leisure, or spent a portion of their time to less advantage than the same can now be turned to.

"Preparations were made to plant a larger area of tobacco the present season in all of the valley, but from the ravages of cut-worms, unfavorableness of the early spring and other combined causes, the crop at this writing is quite uneven, and it is very doubtful whether the quality produced will equal that of last year. Some growers did not finish setting the first time over till past the middle of July, yet if the fall-frosts hold off, and there be favorable weather, the crop may be much larger than at present expected."

As will be seen, the foregoing was written in July, before the crop had made much growth generally. From about the middle of July I never saw such a rapid growth of any kind as there was with tobacco. The weather was a good deal cloudy, moist and warm, resulting in one of the most unprecedentedly large growths of tobacco ever known, a large portion of which was diseased growth, some rotting in the field before harvesting; more was injured by pole-burn after being hung, so that throughout the whole valley there was only a very little portion of the whole which was fine wrappers, resulting somewhat disastrously to many; yet, undiscouraged, they set about to put out equally, or nearly so, in amount the present season with returns

to be made on the final result. In all my experience and observation, extending over a period of about forty years, I have never known so much general, or even local diseased and pole-burnt tobacco as was known of the crop of 1872. W. H. WHITE.

P. S. In writing of casing tobacco I omitted to give the reason for being particular to press it equally, putting the same number of pounds in each case; it is, that the tobacco may sweat evenly. It has been found that where the cases varied considerably, or were not pressed alike, that the tobacco did not sweat alike; while some would be overdone, others would not be sweated enough. W. H. W.

Deep vs. Shallow Ploughing.

To the Editors of the American Farmer :

Gentlemen,—I notice an article in your October number signed L. E. Rice, in which that gentleman says, "you say *plough deep, plough deep*. Well, plough deep, if you want to make your mules sweat and get a poor crop of Indian corn." That their best farmers do not plough more than 4 to 4½ inches deep; that a large farmer, his neighbor, does not plough his corn ground more than 3½ inches; that he ploughs deeper for *oats and wheat*, but never deeper than *he can manure* (?); and that Indian corn, oats and wheat were profitably cultivated in days of yore without going down into the subterrane.

Now, gentlemen, I shall be sorry if I trespass upon your time and patience, but I do feel constrained to say a few words about ploughing deep, *especially for corn*. Corn is our strongest growing plant, and its roots penetrate very deep into the soil, and it luxuriates in a deep bed. *Wheat, oats and rye, more frail*, do not need such a depth of root, although even they delight in a deep, rich soil.

Last spring I ploughed up a field, of only moderate strength, *nine* inches deep, turning up one or two inches of subsoil. I planted this field in corn, and it stood manfully throughout the whole of the drought, (and that was excessive in this locality,) while others around, not sowed so deep, showed distressing signs of failing. I have now, at the time of cutting, a very fine crop of corn, and that in every part of the field, inasmuch that my father, an old man, between 70 and 80 years of age, says that he has not for many years seen such a crop on that field. This corn was planted about the earliest, too, much of it. The land was ploughed with 2-horse Western steel ploughs, and that without the slightest detriment to muscle, flesh or fat, for the ploughs are the most frictionless implements of the kind I have ever seen. Apropos, I do not argue that all soils ought to be ploughed very deep, alike, at first, but that the proper depth should be approached gradually. Coats of manure can be thoroughly mixed with the soil by ploughing them in shallow, 3 or 4 inches, and cross-ploughing twice the depth.

If the above should meet with your sym-

pathy, and you should feel disposed to publish, you can use your own pleasure.

Very respectfully yours,

EDW'D HALL, of B.

Anne Arundel Co., Md., Oct. 4, 1873.

Merino Sheep in Connection with Farming Southern Lands.

To the Editors of the American Farmer :

Although there are exceptions, the farms in the Southern States are not managed according to the requirements of the times. A change is wanted. Your land has sufficient fertility to justify an improvement; your business standing requires and your claims as farmers demand you should change your ways. It is easily done. I know it can be done. Your land is as good as mine was; you have a more genial climate and a shorter winter to provide for. I begun on an old worn out farm, on which there was a heavy debt on interest. A few sheep were bought; besides these a few pure Spanish merinos were bought, and these annually increased and improved. Buckwheat, and, in turn, oats and grass were turned under; manure made and applied on the surface, also lime and plaster on the surface, and thus the entire thing changed. My fields are now fertile, my flock without an equal. Farmers, stop your exhausting ways, buy a few ewes from some one near you, of any kind, then one or more pure Spanish merino ewes, and a ram or rams sufficient to serve them; annually sell your worst and buy a few more pure blooded sheep, turn under some green crops, a part of a field at a time, if necessary, and in a few years a happy change will be wrought. JOHN S. GOE.

Brownsville, Pa.

The Fish Commissioners of Massachusetts, Connecticut and Maine have arranged with United States Commissioner Baird to procure land-locked salmon from Lake Sebeck, which lies about thirty miles northwest of Bangor, and have leased a place near the head of the lake for five years for a hatching-house. The Commissioners are unanimous in their opinion of the superiority of land-locked salmon over other lake fish. They are like the true salmon except in size, weigh from two to four pounds each, are easily cultivated, and thrive well in warm weather, such as is found in the lakes and ponds of New England.

VENANGO GRAPES.—Mr. G. W. Ditzler, of Oldham county, Kentucky, is raising what he calls the Venango grape. The Southern Agriculturalist pronounces it "as good as the Delaware." The color is light amber, bunches large and compact, and the skin thick. The question respecting it is, "will it withstand the wintry zephyrs," as do the Concord and Clinton? If so, it will prove a very great acquisition to the collection. At the fruit growers' exhibition at Louisville it took the sweep-stake premium.

The Maryland State Agricultural Fair.

The show of the State Society took place October 7th to 10th, on its grounds at Pimlico, the weather proving most favorable. The facilities for reaching the grounds were much better than heretofore, but the attendance of visitors was less, we believe, than last year. Of the financial results we are not apprised, though one of the daily papers report that they fall short of the hopes of the managers.

The exhibition, as a whole, was not, we think, equal to former shows of the Society as at present organized, though in some departments the displays were good, whilst falling off in others.

In *horses* the showing was a very good one, quite equal to the average, probably, of our Maryland shows. The beautifully formed Arabian stallion of Col. Jenifer was again on exhibition, but did not have this year to divide the attention of the observers with the substantial and numerous Percherons which Mr. Walters showed last season.

In *cattle* there was, we believe, a diminution in the entries, as there was also in the number of exhibitors. The Jerseys of course predominated, and make a very beautiful display, and one which probably can in few places be surpassed. The Devon herd of Mr. Brown attracted, as it always does, a large share of the public interest, from the uniform appearance and excellent condition of its members. Mr. C. K. Harrison, we were glad to see, had a number of his Ayrshires on the ground. Mr. Merryman's Herefords were present. Very few natives and grades were shown. There was not a Short-Horn exhibited. This statement will probably excite surprise in these days of great interest in this noble race. The absence of the well known herd of Mr. Coffin, of Prince George's, was noticed on every side, and much regretted. The Short-Horns, to average townsmen, who, of course, compose the bulk of the visitors to a fair near a large city, are more attractive than any other cattle on account of their massive proportions, and the absence of Mr. Coffin's animals was, as a consequence, probably more noticed than would have been that of two-thirds of all the other cattle generally shown. Except the Patterson herd, we believe all the cattle shown were from Baltimore county, and were owned in a district measured by a radius of a dozen miles from Pimlico.

The herd prizes in all the various classes except the Herd Book Jerseys were awarded to the single exhibitors of each breed. In Jerseys Mr. J. Howard McHenry's herd, headed by the superb imported Southampton, carried off the ribbon.

Of *swine* the show was very small, though the specimens were fair of their kind.

In *sheep* the display was better, though not

large. The recently imported Cotswold ram of Mr. Mitchell, a very fine animal, was much admired.

The *poultry* cages were well filled, and with good specimens of the several breeds, and received a large share of the notice of visitors.

In *farm and garden products* the display was better than usual, and the exhibition of *plants, flowers and evergreens* was very good.

The *fruit* show was not large, but the specimens shown by Messrs. Sweeney and Emory were very handsome, especially the pears of the latter named gentleman, which rivalled in size and far surpassed in flavor those of the Golden State.

The *Household Department* comprised a great number of useful and ornamental articles, and of course was closely inspected by the ladies.

Our *agricultural implement* makers seemed to have concerted to make a good display of their productions, and the exhibition in this branch was a large and effective one. Almost every house in that line in this city, and some from abroad, was represented, and as will be seen by a reference to the annexed premium list, the prizes were well distributed.

On Thursday, the third day, President Grant, with some members of his cabinet, visited the fair, on which occasion there was a large crowd present, partly drawn, doubtless, by curiosity to see the distinguished strangers.

The annual address which it was the custom formerly to have delivered on the grounds, was this year omitted, as, indeed, in most cases it might be, without much detriment to the agricultural cause, the orators on such occasions being generally lawyers, or public men whose acquaintance or connection with farmers' work and wants is but superficial.

The evening meetings of the Agricultural Society, which in former years were of much interest to the agriculturists visiting the fairs, and which were often largely attended, seem under the present management to have been abandoned, and the daily papers report that the meeting for the election of officers had to be postponed to a future occasion, there not being persons enough present to proceed with the business.

On the whole, we fail to see that the State Society is accomplishing very much good for the class for whose benefit it is supposed to be designed, or making a very profitable use of the handsome endowments which it has received from our State and city.

Below we give, as usual, a report of the premiums awarded at the fair.

Awards of Premiums—1873.

HORSES.—The awards were as follows:

Imported Horses.—Best thoroughbred stallion, "Ishmael Pacha," diploma and \$30, Col. Jenifer; best thoroughbred mare, "Sadie," \$25, Jos. H. Reiman.

Blooded Horses.—Best thoroughbred stallion, diploma and \$30, Col. J. T. Sinn; second, \$20,

J. A. Lynch; best mare, \$25; do. do. second, \$15. G. B. Maul; best colt 3 years old, \$20, J. H. McHenry; second, \$15, John W. Garrett; best filly 3 years old, \$20, J. H. McHenry; second \$15, do. do.; best filly, 2 years old, \$10, G. B. Maul; second, \$5, Colonel Jenkins.

Quick Draft.—Best stallion, diploma and \$30, G. Cockey; second, \$20, C. J. B. Mitchell; best mare, \$25, James Murphy; second, \$15, G. S. Brown; best horse colt 3 years old, \$20, J. J. Ross; second, \$10, D. C. Gray; best horse colt 2 years old, \$15, J. H. Coale; second, \$10, John W. Garrett; best horse colt 1 year old, \$10, G. S. Brown; second, \$5, C. E. Easter; best filly 2 years old, \$10, R. J. Moore; best pair coach horses, geldings or mares, diploma and \$40, G. S. Brown; best brood mare in foal or with foal on foot, \$20, R. Norris; best gelding, \$10, W. C. Howard.

Heavy Draft Horses.—Best filly 3 years old, \$20, G. W. Lurman; second, \$10, C. K. Harrison; best filly 2 years old, \$5, C. K. Harrison; best filly 1 year old, \$5, G. W. Lurman.

Horses for general utility.—Best stallion, diploma and \$30, Robert Hedrick; second, \$20, James Helner; best brood mare, \$25, John Merryman; best pair matched coach horses, \$30, L. Mongar; second, \$20, J. H. Rieman; best pair mated coach horses raised by exhibitor, \$30, G. W. Lurman; best saddle mare or gelding, \$20, J. F. Mettman; second, \$15, R. Q. Hall; best saddle pony not over 13½ hands in height, \$10, J. Howard McHenry.

Discretionary Premiums.—Best gelding for general utility, 3 years old, \$10, Jas. Padian; best gelding, for general utility, 2 years old, \$5, James Padian; best heavy draft gelding, \$10, G. W. Lurman; second, \$5, Alfred Gallagher; best quick draft gelding, \$10, J. H. Rieman.

Sheepstakes Stallions.—For that stallion in any class of whose get the best lot of colts, not less than five, shall be exhibited with him, diploma and \$30, Mambrino Hambletonian, J. Howard McHenry.

A report of the trotting matches and races, without a description of the heats, for which we have not space, would not be of sufficient general interest to warrant its insertion here.

CATTLE.—*Jersey Herd Book Cattle.*—Best herd, \$25, J. H. McHenry; best imported bull 3 years old, \$25, J. H. McHenry; best bull between 2 and 3 years, \$15, J. E. Phillips; best cow 3 years old, \$20, Rob't Moore; second, \$15, J. H. Rieman; best heifer in milk or with calf, and between 2 and 3 years old, \$15, Col. J. S. Jenkins; second, \$10, J. E. Phillips; best heifer calf, \$5, Clarke & Jones; best heifer calf between 1 and 2 years old, \$10, J. E. Phillips; best bull 3 years old, \$25, W. H. Perot; second, \$15, J. S. Jenkins; best bull between 2 and 3 years old, \$15, J. H. McHenry; second, \$10, do. do.; best bull between 1 and 2 years old, \$10, do. do.; best bull calf, \$5, J. H. McHenry; best cow 3 yrs. old, \$20, Jesse Tyson; second, \$15, Clarke & Jones; best heifer between 2 and 3 years old, \$15, J. H. Rieman; second, \$10, J. S. Jenkins; best heifer calf, \$10, Robert Moore; best

heifer between 1 and 2 years old, \$5, J. H. McHenry.

Channel Islands.—Best herd, \$25, C. G. Shipley; best heifer between 1 and 2 years, \$5, L. Mongar; best bull 3 years old, \$25, C. G. Shipley; best bull calf, \$5, do. do.; best cow 3 years old, \$20, L. Mongar; second, \$15, Clarke & Jones; best heifer calf, \$10, L. Mongar; best heifer between 1 and 2 years, \$5, C. G. Shipley.

Hercfords.—The premiums in this class were taken by J. Merryman, there being no competition.

Devon Cattle.—Best herd, \$25, S. T. C. Brown; best bull 3 years old, \$25, do.; best bull between 2 and 3 years of age, \$15, do. do.; best bull between 1 and 2 years, \$10, do. do.; second, \$5, do. do.; best bull calf, \$5, do. do.; best cow 3 years old, \$20, do. do.; second, \$15, do. do.; best heifer between 2 and 3 years, in milk and calf, \$10, do. do.; best heifer calf, \$5, do. do.; best heifer calf between 1 and 2 years, \$10, do. do.

Ayrshires.—Best herd, \$25, C. K. Harrison; best imported bull 3 years old, \$25, C. K. Harrison; best imported cow 3 yrs. old, \$20, do. do.; best heifer between 2 and 3 years, in milk or in calf, \$15, do. do.; best bull 3 years old, \$25, do. do.; best bull between 1 and 2 years, \$10, do. do.; best bull calf, \$5, do. do.; best cow 3 yrs. old, \$20, do. do.; second, \$15, do. do.; best heifer between 2 and 3 years, in milk, \$15, do. do.; second, \$10, do. do.; best heifer calf between 1 and 2 years, \$5, do. do.

Grades or Natives.—Best milch cow, \$20, John O'Neill; second, \$15, Mrs. G. Brown; best cow or heifer between 2 and 3 years, \$10, John O'Neill; best cow or heifer between 1 and 2 years, \$10, Mrs. G. Brown; second, \$5, H. B. L. Everding.

Working Oxen.—Best yoke, \$30, H. B. Holton; second, \$20, J. H. McHenry.

Swine.—Premiums were awarded as follows: Best Berkshire boar 2 years old, \$12, J. H. McHenry; best litter of pigs, 4 months old, \$8, G. R. Hamson; best Poland China sow, 2 years old, \$12, George F. Page; best litter of Poland China pigs, four months old, \$8, G. F. Page; best show of Poland Chinas, \$12, H. B. Holton.

SHEEP.—*Imported Long Wools.*—Best buck, \$20, C. J. B. Mitchell; second, \$10, Rosby & Casswell.

American Bred Long Wools.—Best buck, \$20, C. J. B. Mitchell; best pen ewes not less than three, \$15, do. do.; second best pen of ewes, \$10, do. do.; best pen buck lambs, \$10, do. do.; best ewe lambs, \$10, do. do.

Imported Middle Wools.—Buck, \$20, John Merryman.

American Bred Middle Wools.—Best buck, \$25, James Padian; second, \$10, G. W. Lurman; best pen ewes, \$10, Dr. DeCoursey; second, \$10, G. W. Lurman; best pen buck lambs, \$10, Dr. DeCoursey; best pen ewes, \$10, John Merryman.

American Bred Fine Wools.—Best buck, \$20, S. K. Crosby; best pen ewes, \$15, do. do.; best pen buck lambs, \$10, do. do.

Grades.—Best pen ewe lambs, \$10, C. K. Harrison; two fat sheep, \$10, Dr. DeCoursey.
Bacon Hams.—Best ham, cured by exhibitor, \$10, to C. C. Carman.

Garden Vegetables.—Best and largest assortment, \$15, W. S. G. Baker; second do., \$10, J. H. McHenry; long blood beets, \$3, Mrs. J. Gittings; turnip beets, \$3, T. F. Reinick; cabbage heads, \$3, John O'Neil; carrots, parsnips, egg plants, \$3 each, to A. D. Brown; best peck of onions, \$3, W. S. G. Baker; best bushel sweet potatoes, \$3, H. D. Brown; pumpkins, \$3, C. C. Carman; best peck of tomatoes, \$3, to same; winter squashes, \$3, G. L. Loomis; roots of celery, \$3, W. S. G. Baker.

Butter.—Best fresh, \$5, John W. Zink; second best, \$3, Mrs. James Consandine.

Canned Fruits.—Best dozen cans of fresh peaches, \$10, Miss A. Breckenridge, and \$5 to same for glasses of jellies.

Cut Flowers and Floral Designs.—Best general collection cut flowers, \$5, to Miss A. Breckenridge; best collection dahlias, \$5, C. J. Baker; second best collection of cut dahlias, \$3, W. D. Breckenridge; best collection of roses, \$5, A. Breckenridge; best floral basket, \$5, Miss A. Breckenridge; second floral basket, \$3, J. H. McHenry; best vase with flowers, \$5, Miss B. Breckenridge; second best vase with flowers, \$3, J. H. McHenry; best pair round hand bouquets, \$4, A. Breckenridge; second best pair round hand bouquets, \$2, A. D. Brown; best round bridal bouquet, \$4, John Feast.

Fruits.—Best collection, \$15, A. W. Sweeney; best varieties fall apples, \$2, A. W. Sweeney; best varieties winter apples, \$2, A. W. Sweeney; best and largest collection of apples, \$5, A. W. Sweeney; best six varieties fall pears, \$4, R. S. Emory; four winter varieties of pears, \$4, R. S. Emory; best and largest collection of pears, \$6, R. S. Emory; second best collection of pears, \$4, A. W. Sweeney; best and largest collection of grapes, \$6, Charles J. Baker; second best collection of grapes, \$3, A. D. Brown.

Evergreens.—Best and largest collection of hardy evergreens, \$10, W. D. Brackenridge (for 114 varieties); 2d best do., \$5, John Feast.

Pot Flowers.—Largest and best collection, \$10, John Feast; best collection of verbenas, \$4, A. Breckenridge; best and largest collection of foliage plants, \$10, John Feast; second best collection of foliage plants, \$5, J. H. McHenry.

Grain and Root Crops.—Best sample wheat, \$5, J. H. Reiman; best white corn, \$5, Mrs. George Brown; best yellow corn, \$5, W. S. G. Baker; best rye, \$5, Mrs. George Brown; best oats, \$5, J. H. Reiman; best Irish potatoes (Peerless), \$5, Alexander Brown; best early Irish potatoes (Early Rose), \$5, W. S. G. Baker; best mangle wurzel, \$5, W. S. G. Baker; best sugar beets, \$5, W. S. G. Baker.

Wines and Cordials.—Best bottle homemade bounce, \$3, Miss Olivia Moore; best blackberry wine, \$3, Miss Olivia Moore; best sweet blackberry wine, \$3, Miss Bessie Jenifer; best

currant wine, Miss Olivia Moore; best sweet currant wine, \$3, Miss Bessie Jenifer; best bottled cider, \$6, Alexander Rieman; best still Catawba wine, \$3, Miss Bessie Jenifer; best strawberry wine, Miss Hattie Mitchell.

POULTRY AND PIGEONS.

Pigeons.—For best collection, \$5, to D. G. Stevens, whose pigeons, of fifteen different varieties, brought him \$29 in premiums of \$1 or \$2 each; Mr. J. E. Delaplane's pigeons, next best collection, took a number of first premiums for varieties, eleven premiums in all, aggregating \$18; Mr. Charles H. Betts took premiums of \$2 each for red turbits and kites.

Fowls.—Premiums of \$1 and \$2 each were awarded as follows: Brahmas—C. E. Boileau, J. P. Shriver, J. D. Oakford, Dr. J. S. Bowen, F. J. Gramlich, and Wm. Bowman. For Cochins—J. P. Shriver, F. C. Slingluff, L. Mongar. For Leghorns, to F. J. Gramlich and C. E. Boileau. For Spangled Hamburg, to P. Rieman, and for Creepers to J. D. Oakford. For Game Fowls—J. E. Stewart, four premiums; T. A. Cochran, four premiums; John Merryman and J. E. Delaplane, one premium each. For best collection of Game Fowls, \$5, divided between Stewart and Cochran. For Polish Fowls, Mr. Wm. Bowman swept the roost, two premiums. French Fowls, J. D. Oakford two and Wm. Bowman one premium. For Bantams, L. Mongar, J. E. Delaplane, Wm. Bowman and F. Brady. For Turkeys, L. Mongar, three premiums, J. J. P. Shriver and C. G. Shipley, and one to Shipley for geese. For Ducks, L. Mongar, two premiums, and T. C. Slingluff and C. H. Betts one each. For best pair of live Capons, \$3, to J. P. Shriver. For hen's eggs, by weight, A. E. Gray. For best two Brazilian Ducks, \$3 to Master C. L. Rogers.

Agricultural Machinery.—Portable steam engine, \$30, George Page & Co.; portable farm mill, \$10, Spear Bros.; saw mill for lumber, \$25, George Page & Co.; saw mill for fire-wood, \$10, George Page & Co.; agricultural steamer, \$10, R. Sinclair & Co.; corn and cob mill, \$5, E. Whitman & Son; farm pump for hand power, \$3, Hubbel & Dunnett; water ram or other water elevator by water power, \$10, Hubbel & Dunnett; washing machine, \$5, F. F. Barrow; clothes wringer, \$3, A. G. Mott; machine to thresh and clean at one operation for from 2 to 6 horses, \$20, Griffith, Baker & Bryan; sweep horse power for from 4 to 6 horses, \$10, Joshua Thomas; two-horse do. \$10, Griffith, Baker & Bryan; mowing machine for 2 or more horses, \$15, D. H. Lee & Bro.; mowing machine, hand power, for lawns, \$5, J. C. Durborrow; combined reaping and mowing machine, \$10, L. H. Lee & Co.; combined reaper and mower, with dropper attachment, \$20, Joshua Thomas; combined reaper and mower, with self-raking attachment, \$20, L. H. Lee & Bro.; hay tedder, \$10, Griffith, Baker & Bryan; sulky or wheel horse-rake, \$5, Griffith, Baker & Bryan; best hay press by horse-power, \$8; hand power, \$5, E. Whit-

man & Son; large cider and wine press, \$8, Griffith, Baker & Bryan; small cider and wine press, \$5, E. Whitman & Son; cheese press, \$3, Griffith, Baker & Bryan; smut machine, \$3, E. Whitman & Son; stump puller, \$5, Griffith, Baker & Bryan; churn, \$3, T. Norris & Son; bee-hive, \$4, E. Whitman & Son; platform scales, \$4, Spear Brothers; ox yoke and bows, \$2, A. G. Mott; self-opening and shutting gate, \$10, J. F. Bannon; machine for grinding reaper knives, \$3, Griffith, Baker & Bryan; road scraper, \$2, T. Norris & Son; one-horse plough, for general use, diploma and \$4, Thomas Norris & Son; two-horse plough, for general use, diploma and \$6, E. Whitman & Son; three-horse plough, for general use, diploma and \$6, Thomas Norris & Son; plough, for rough and new land, \$4, R. Sinclair & Co.; sub-soil plough, \$5, R. Sinclair & Co.; hillside plough, \$5, A. G. Mott; gang-plough, \$4, R. Sinclair & Co.; one-horse plough, for vegetables, \$2, Thomas Norris & Son; hand-plough, \$2, Thomas Norris & Son; potato plough or digger, \$5, R. Sinclair & Co.; harrow, \$5, E. Whitman & Son; corn cultivator, \$3, E. Whitman & Son; tobacco cultivator, \$3, Thomas Norris & Son; horse-hoe, \$3, R. Sinclair & Co.; field roller, \$8, R. Sinclair & Co.; grain drill, \$8, H. P. Underhill; grain drill, with guano and seed attachment, \$15, H. P. Underhill; corn planter for horse-power, \$5, George Page & Co.; garden seed sower, \$2, A. G. Mott; lime or other fertilizer broadcast spreader, \$5, L. H. Cole; best grain fan to separate cockle, filth, etc., from wheat, at one operation, \$10, E. Whitman & Son; best cockle machine, \$5, E. Whitman & Son; double spout corn-sheller, \$4, Thomas Norris & Son; single spout corn-sheller, \$3, Griffith, Baker & Bryan; hay, straw and stalk cutter, for horse-power, \$8, R. Sinclair & Co.; hay, straw and stalk cutter, for hand or horse power, \$8, R. Sinclair & Co.; hay and straw cutter, by hand power, \$5, R. Sinclair & Co.; vegetable or root cutter, \$2, Thomas Norris & Son; horse hay fork, \$5, Griffith, Baker & Bryan; four grain cradles, \$3, E. Whitman & Son; four American grain and grass scythes, \$3, A. G. Mott; half dozen hand hay rakes, \$3, A. G. Mott; half dozen garden rakes, \$2, E. Whitman & Son; half dozen pitch forks, \$2, A. G. Mott; half dozen forks for digging, \$2, E. Whitman & Son; half dozen long handled shovels, \$3, T. Norris & Son; briar or bramble scythe, \$1, A. G. Mott.

Harness.—Messrs. J. D. Hammond & Co. received the first premium of \$20 for set of fine double carriage harness.

Discretionary Premiums.—1 Burdick reaper with self-rake, diploma and \$10, J. C. Durborow; gas machine, diploma and \$5, Hubbel & Dunnett; Kerrigan meat chopper, diploma, J. C. Durborow; excelsior cattle poke, diploma, E. Whitman & Son; rye thresher, diploma and \$20, Griffith, Baker & Bryan; fruit press, diploma, Griffith, Baker & Bryan; sugar mill, diploma, Griffith, Baker & Bryan; one scroll saw, diploma, C. Trump; Clifton

fruit crates, diploma, E. B. Georgia; spokes, wagon and carriage, diploma and \$5, E. B. Georgia; disintegrating mill, diploma and hon. mention, Denmead & Sons; two bunches Prince Albert grapes, weight 15 pounds, highest commendation, diploma and \$15, W. T. Walters; lot raspberries, \$3, Miss Julia Thompson; Waterloo Yeast Company, diploma, A. L. Childs; broadcast seed sower, diploma, Spear Brothers; sulky rake, diploma, J. E. Wisner; combination corn planter and fertilizer distributor, diploma, C. W. Barrick; J. Matthews & Son, box for shipping butter, hon. mention and \$1; Clark & Sneider, for breech loading gun, diploma.

Household.—Various small premiums for household manufactures were awarded.

The Vineyard.

Of Interest to Grape-Growers.

Dr. Wm. F. Channing, in a letter to the Rhode Island Horticultural Society, on the subject of mildew on grape vines, gives some of the results of Mr. Thomas Taylor's microscopic investigation into the fungoid diseases of plants at the Department of Agriculture at Washington. Mr. Taylor has traced the mildew on the European grape vines through all its stages, and has found the ripened conceptacle on all parts of last year's growth; no matter, therefore, how closely a vine is trimmed, enough wood is left upon it to carry the seeds of the mildew over to another year, and as soon as a piece of last year's cane is brought into warm atmosphere the mildew begins to develop from the seeds or spores. Mr. Taylor, at the suggestion of a prominent horticulturist, tried the experiment of keeping the grape very dry for a few days. This resulted in so rapid a development of the European mildew, that he obtained, for the first time, the perfectly ripened conceptacles of that variety. It follows that the European mildew is developed by dry, and the American mildew (another fungus) by moist heat. In his observation of the mildew on the American vines, Mr. Taylor finds on the wood of last year's growth the cobweb like branches of this pest, capable of resuming active growth when subjected to warmth and moisture. There is also an American variety of the European mildew, which appears so late as hardly to affect the fruit, but may possibly affect the buds of the next year. Mr. Taylor finds washing the branches in winter with a solution of sulphuret of lime, or carbolic soap, destroys these spores on the wood, and, as another precaution, he advises destroying of last year's leaves and trimmings, which may be regarded as a storehouse of latent mildew.

Live Stock.

THE MUIRKIRK HERD.—Mr. Coffin sustained a great loss in the death of his superb bull Royal Briton, but he had a number of cows in calf to him, and he now writes that the calves which have been dropped please him very much, they all being good ones. He furnishes us a list of recent additions to the herd, with the names claimed.

"Maid of Muirkirk," c. c., calved July 13th, 1873, got by imported "Lord Abraham," 11223, out of imported "Maiden" by K. C. B., (26492,) dam Milliner by "Brigade Major," (21312,) &c., &c.

"Royal Briton, Jr.," red and white b. c., calved August 15th, 1873, got by Royal Briton, 9014, out of Arabella 2d by Granite State, 2936½, dam Arabella by Connecticut, 369, &c., &c.

"Muirkirk Gwynne 2d," a red roan c. c., calved Aug. 19th, 1873, got by Royal Briton, 9014, out of Masterpiece by 6th Duke of Thorndale, 4752, dam Moselle by 4th Duke of Thorndale, dam 2790, Mistress Gwynne by Grand Duke, 545, &c., &c.

"Muirkirk Gwynne 3d," a roan c. c., calved Sept. 16th 1873, got by Royal Briton, 9014, out of Malibran by 4th Duke of Geneva, 7931, dam Masterpiece by 6th Duke of Thorndale, 4752, &c., &c.

"Lady Fern 2d," a white c. c., calved Aug. 26, 1873, got by Royal Briton, 9014, out of imported Lady Fern by 5th Duke of Wharfedale, (26033,) dam Maidenhair by Grand Duke of Wetherby, (17997.)

"Elvina's Briton," a white with roan ears, b. c., calved Sept. 16th, 1873, got by Royal Briton, 9014, out of Elvina 4th by 11th Duke of Thorndale, 5611, dam Elvina by Duke of Geneva, 3858, &c., &c.

"2d Portulacca of Muirkirk," a red with white star c. c., calved Sept. 22d, 1873, got by Royal Briton, 9014, out of imported Portulacca by Duke of Grafton, (21594,) dam Primula by Victor, (15458,) &c., &c.

"Blossoms Briton," a red b. c., calved Sept. 27th, 1873, got by Royal Briton, 9014, out of Blossom by Lord Mayor of Oxford, 4954, dam Brunette by Hero of Thorndale, (18061.)

"2d Prince of Muirkirk," a red roan b. c., calved Oct. 3d, 1873, got by Lord Abraham, 11223, out of Blanche by White Cloud, 9300, dam Rowena 2d, by Hotspur, 4030, &c., &c.

Combing Wools.

The Bradford *Observer*, in a review of the wool and worsted trade for the year 1872, observes on the probable increase in the price of combing wools in England:—

It is worthy of notice that the raw material has ruled the market much more than usual, and the price of yarn has frequently advanced or been depressed in sympathy with

wool; while, on the contrary, wool has frequently advanced without any apparent corresponding movement on the part of yarn. The question of the adequacy of the supply of deep English wool (combing wool) for our present consumption, is becoming more serious year by year; and unless greater supplies of wool which can be substituted are produced by our colonies, it seems doubtful whether the present high range of prices will not before long be considerably exceeded.—When we consider the great increase in the value of most other commodities—notably coal and corn—the greater wealth of the country, the increase of wages, the large amount of new machinery which is continually being put in motion, and then remember that our supply of English wool is certainly not greater, if as large, as it was twenty years ago, the conclusion is forced upon us that with anything like an ordinary trade, and an average amount of machinery running, wool is not at all unlikely to range even higher than it has done.

Importance of Water for Sheep.

It is a great mistake, and the cause of much suffering and loss, not to supply sheep with water, especially milk-giving ewes. During the drought of 1868 many flocks were ruined by want of water. I know of a striking instance where the animals wasted and were sent to Clemsford market in evil condition, the owner being ignorant of the cause. The dealer, who bought them 'for a song,' first examined the whites of their eyes, thinking they must have the rot or jaundice; but seeing all right so far, he found that a supply of water was the only restorative required.—Grass in a succulent state contains seventy per cent. of moisture, but, when dried, very much less. The same remark holds good for clovers, etc. When we give cake, corn, malt-combs, bran, etc., which we always do, it becomes absolutely necessary to provide water, or the animals will not thrive. Give them the opportunity of judging for themselves by an always available supply, and they will exercise a proper discretion in the matter. An iron water cart is on most farms an indispensable requisite. When food is too wet and sloppy, dry cotton-cake or grain is a good and profitable regulator. Turnips and mangold are disproportionately watery as food for animals; hence the losses occasioned by them, especially with breeding sheep. They contain fully nine pints of water to one pint of dry food. Ninety per cent. of water is too much; sixty-five to seventy-six per cent. in pasture grass is the more natural and proper proportion. The human or animal frame has seventy-five per cent. of water, just as good grass has. Meat is dear as food, because it contains, in the lean portions, seventy-six per cent. of water. No wonder that bread and cheese are found far more economical.—*Mr. Mechi in Mark Lane Express.*

THE GREAT SHORT-HORN CATTLE SALE.—

The extraordinary prices which were announced as having been paid for Mr. Campbell's herd of Short-horns, were so startling, that the whole matter was at first received in this country, by many, as a hoax, and the receipt of the full report was requisite to confirm the statement, which had been telegraphed in every direction. No such prices for live stock of the bovine species had ever been imagined—and the knowing ones in England were equally astonished, and some of the greatest feats of telegraphing are recorded, in Bell's (London) Messenger, in conveying the intelligence across the water—the London Daily Telegraph, in consequence of the incredibility attached to the reports first received, went to the expense of sending a special message of inquiry to verify the fact before the publication.

It was stated in the account of the sale, that Lord Skelmersdale gave \$35,000 for one of the cows, the 1st Duchess of Oneida,—the Country Gentleman learns from Mr. Campbell that "she gave birth on the 30th Sept. to the 11th Duchess of Oneida," a very showy and promising calf, which is doing well.

TRANSPORTATION OF CATTLE.—An act of Congress passed last winter, went into force October 1st, providing that no animals in transportation shall be confined in cars or boats more than twenty-eight consecutive hours, without unloading for refreshment, unless storms or accidents prevent. During their rest the animals shall be carefully fed and otherwise cared for. The penalty for failing to comply with these requirements on the part of owners of transportation companies is a fine of not less than one hundred nor more than five hundred dollars. The United States Marshals and their deputies are charged with the duty of enforcing this law, when notified of its infringement.

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SALTING MEAT.—Nessler considers the questions, what are the best proportions of salt, sugar and saltpetre? and is it better to treat the meat with a dry mixture of the above substances, or to dissolve the salts and the sugar in water, and to apply this solution? As to the first point, he recommends a mixture of 6 pounds of common salt, 3 ounces of nitre, and 1 pound of sugar to every 100 pounds of meat; these figures correspond very closely to the proportions employed for salting meat in England. As to the second, he is in favor of using a solution instead of the dry mixture, because this latter extracts from the meat not only water, but also some of the most nutritive constituents. On the other hand, it must not be overlooked that salting by means of brine requires special care in order to insure thorough contact of all the parts of the meat with the salt, and also a longer time for subsequent drying.

The Apiary.

How to Peaceably Unite Two or More Swarms.

The bee-keeper is often under the necessity of uniting several swarms. This is the case about swarming time, when he will often be compelled to unite two or more swarms. This happens especially with after-swarms, of which it will often require several to make one good one. In these and various other cases must the bee-keeper unite his stocks. The danger then presents itself to the bee-keeper that he may lose a portion, perhaps a large portion, of his united stocks by their fighting among each other, while by judicious management hardly a bee will be injured or killed.

In accomplishing this union there are two questions of importance:

1. When shall the union take place?
2. How shall it be accomplished?

When the union takes place the bees themselves teach us. Do two colonies unite, when swarming, the bees mingle together without anger, no bee through hostility injuring another. While the swarm is settling, the assembled bees appear to think of nothing but the act of swarming, not even guarding their queen, as the bee-keeper discovers, when a young queen is placed in a virgin swarm and the old one killed.

Does the bee-keeper desire to unite his swarms, he should do it on the same day on which the swarm makes its appearance, or very soon thereafter. Has the swarm occupied its hive already for a week, and possessing brood, the work of uniting will be more difficult. For performing the operation, I prefer the night to the day, for then the bees are at rest and all gathered into their hives; during the day, owing to the coming and going of the workers, the strange bees are stung and killed, being taken for robbers, and hence attacked. The actual uniting I accomplished in this manner: I destroy the sense of smell in the bees, so that they will take the strange bees for their comrades. Many bee-keepers use only tobacco smoke, which they blow into the hive. Better, in my experience, is sprinkling the bees in the hive in which the strange bees are to be placed with thinned honey. Then the bees to be united are sprinkled with the same honey until they are quite wet, and thrown into the other hive. Through the jar occasioned by casting the strangers into their hive, the bees will be so disturbed, so terrified, that they will not think of the arrival of the strangers. When they undertake to lick the honey for themselves they will become friends, and through the honey receive the same scent. Never, since I adopted this method, have I had a single bee stung. Many bee-keepers, and I myself, make the bees walk through fresh dewy grass. The reason why the bees will allow themselves to mingle by this method

lies in this, that the fresh damp grass removes the individual scent of the bees. To me, however, sprinkling with honey appears to be the safer method. An old plan now comes to mind, that instead of honey-water, wine was used. This plan has certainly been proved; the ground on which it is based is apparent at once—no! the reader, without doubt, knows what I want to say—I would rather stick to my old plan.—*Translated from Kleine's Bee Journal by W. Luhmann, in Amer. Bee Journal.*

The Poultry Yard.

Feeding Fowls.

The best standard soft food is ground oats, if procurable; barley meal will make an excellent food, and if mixed occasionally with potatoes well washed, turnips, beet or mangold-wurzel, so much the better; this food should be given only in the morning, and then warm, especially in the winter season. Buckwheat as a grain is excellent food, and when fowls get accustomed to it, eat it readily, so is good barley and oats; peas, beans, and Indian corn may also be supplied; but as already mentioned, to supply only such wastes of the body as these materials are capable of. Spiced food is frequently recommended by poultry writers; some advocate the giving of raw onions at least two or three times a week, with a good supply of cayenne pepper in their food; others advocate the use of different condiments, all of which are largely made up of stimulants of various kinds. There is no doubt all kinds of spiced food materially tend to hasten maturity, whether it be to the chicken, the pullet, or the hen that they are supplied. Chickens when thus fed when young, will attain to larger size and lay earlier, commencing at about four months old, and hens will be stimulated to winter and early spring laying, but breeders will do well to bear in mind that the continuance of stimulating fowls beyond a reasonable time will result prejudicially to both old and young fowls. It cannot be denied, however, that when judiciously and moderately given, used at certain times only, such food is highly beneficial. If given to chickens when fledging, it greatly assists in this, to them, exhausting process; and when given to drooping fowls has marked effect, quickly restoring them to their former healthy condition. It is a good thing, too, to give stimulating food to old fowls in cold or wet weather, and when moulting, and to hens that do not lay in due time in early spring; but in any case when the desired effect is produced, spiced food should be discontinued and the usual plain food be again restored. In old birds, if given too frequently or continued beyond the time already mentioned, it produces diseased organs, and in pullets stunted growth.

In the care of chickens of all the larger breeds, the longer maturity can be postponed the larger the birds are likely to be, and no matter what may be said to the contrary, the same feeding which produces forced and rapid growth during the very early period of chickenhood, will of necessity, if continued beyond this, result in stunted, because precocious adults—large size and early maturity cannot be had in the same bird—they are incompatible. For many purposes then it is well to have stimulating food always on hand, or the means by which it may be prepared at a moment's notice. The following condiment mixed with oatmeal will be found highly beneficial: Take of ground allspice two ounces; ground black pepper two ounces; ground ginger half pound, and brown sugar one pound; mix together and add to usual food in sufficient quantity to cause a slightly sweet and hot taste. When prepared it should be kept in a well corked bottle, ready for use when required. The profits of the poultry yard, then, depend on the proper feeding of fowls; inattention in this respect leads to more than half the disappointments and loss to poultry breeders, and tends to produce disgust in the minds of others. Food must be given regularly and in moderation, not too frequently, nor yet too much at a time; in this consists one of the great secrets of profitable and successful poultry breeding.—*Canada Farmer.*

USE OF SULPHUR.—Three years ago I was troubled with those hen-mites (we call them hen-jiggers here,) in countless numbers, so that they drove my sitting hens off the nests. I went for them with kerosene oil, white-wash, etc., until I cleaned them out. I then commenced using air-slacked lime and sulphur freely, in all my nests, for both layers and sitters, renewing it occasionally, and have never been troubled with them, or any other insects in the nests since. I therefore consider it a perfect remedy for the evil.—*Cor. Poultry World.*

PRODUCTION OF COTTON.—In the Agl. Report for 1872, we have the following interesting facts about the production of Cotton, and the estimate of the increased value given to it by its manufacture, is given in a review of a work on Cotton:—

"In speaking of the immense interests involved in the cotton-trade, the author states that in the United States and Europe, at the present time, there are manufactured about 7,000,000 bales annually, averaging not far from 400 pounds per bale. For this, the producers receive about \$400,000,000, gold value. When this cotton is manufactured, and ultimately sold to the consumers in all parts of the world, it has risen in market value to probably six-fold its original cost, leaving to the merchants, ship-owners, manufacturers and tax received not less than \$2,000,000,000 per annum, as remuneration for their capital and labor."

Horticulture.

Planting Peach Trees.

To the Editors of the American Farmer:

I have just now read in the October number of the American Farmer your article upon "Planting Orchards," and for planting peach trees, I take the liberty of disagreeing with your system of *shallow planting, in toto*, and offer my practice against your precept, high as I acknowledge the authority to be. I dig holes three feet diameter, from 18 to 20 inches deep; have the surface soil laid aside carefully; have the subsoil scattered around; make a mound in the centre of the hole about 3 or 4 inches high; set the tree upon the mound and spread the roots, and fill the hole *exclusively with surface earth*, putting in sods and rubbish, if at hand, and raise a mound 5 or 6 inches around the tree.

I planted 408 trees in April, 1872, and 220 last year. The weather, as you will remember, was extremely dry both seasons in Baltimore county. Of the planting of 1872 I lost 9, and of 1873 I lost 3. In November, 1868, I planted 350 trees, and lost but one. The crop upon these trees last year was quite too abundant for the welfare of the trees.

The land upon which I was compelled to plant my little orchard is, in my judgment, very illy adapted to the growth of the peach tree, being a cold, hard yellow clay, flint soil, with a southern exposure, yet I can show you trees now in their fifth year, that measure, many of them, from fourteen to over fifteen inches in circumference. Many of the trees planted in April, 1872, measure from five to over six inches in circumference. The trees planted last April, I think, without any exception, have put out young branches, three to six on every tree, which measure from three to nearly five feet in length. In planting my trees I have never used any manure or fertilizer of any kind or description whatever. All my peach trees stand erect; not one had a stake to support it.

I shall be much gratified if you, or any of your friends who contemplate planting peach trees the coming fall and spring, will call and see my little orchard, 14 miles on the Liberty turnpike road.

L. W. G.

Balto. Co., Md., Oct 11, 1873.

[We shall be glad to accept our correspondent's invitation to visit his orchard if we can find the opportunity, as we know he is a successful culturist. His success in *deep* planting does not correspond with our experience, nor with the advice of the best authorities, and it would seem to us was especially unsuited to the peach, but there may be in his case some peculiar circumstances which may modify the general rule, to which we adhere, and we should be glad to receive, as proposed in his private note, his reasons for the course he pursues.—Eds. A. F.]

Report of the Committee on Pear Blight—Remedy or Preventive.

Hon. Marshall P. Wilder, President
American Pomological Society:

Dear Sir: The committee appointed at the last biennial meeting of this Society to investigate the cause of pear blight, and if possible recommend a remedy or preventive therefor, beg leave to submit as follows:

The task allotted to your committee is connected with unusual difficulties, as the subject is one that has for more than a quarter of a century remained an unsolved problem. We therefore enter upon the performance of our duties with the conviction that our efforts must fall short of doing justice to the subject in view.

Pear blight assumes different forms, and has consequently different causes for its origin. One form attacks trees *gradually*; its approach is slow, and may be detected for months, and often during the preceding season of growth, before the tree is fully affected. This form, which may be termed gradual blight, is seen at all times during the period of active vegetation from early spring until September. Its progress is usually arrested by a liberal top-dressing of liquid manure, so far as the roots extend, and a severe cutting back of the branches. This must be done whenever the tree assumes an unhealthy appearance. The cause then may be safely attributed to exhaustion, and the remedy consists in replenishing the exhausted supply of plant food. This form of blight is often noticed in orchards left unworked, and where the annual or biennial top dressing with fertilizing agents has been withheld.

Another—and this is the most fatal form—attacks a tree, or a portion of it, suddenly, causing the affected part to blacken in a few hours after the tree is struck; this is commonly termed *fire blight*. This form is periodical in its attacks, and migratory, as it seldom remains permanent in a locality, but leaves an interval of from ten to fifteen years between its occurrences. Its greatest intensity is on its first appearance, which occurs usually when the fruit has attained half its size. It decreases as the season of vegetation advances, but reappears again the following summer with less of its previous intensity. After decimating a section of country during two consecutive seasons, there will be an interval of a series of years, during which blight in its other forms may occur, but there will not be a wholesale destruction as during the prevalence of epidemic blight. Every observation tends to the conclusion that *fire blight* is caused by zymotic fungus, whose presence is not detected until life is destroyed in the affected parts. This form offers a wide field for the investigations of the microscopist, and from their future labors we hope to arrive some day at the origin of this fungoid growth. We are unable to arrive at a satisfactory conclusion as to what peculiarities of soil and temperature induce the favorable conditions

for the development of this fungoid vegetation.

In the experimental gardens of the Department of Agriculture at Washington, the following mixture is prepared: Place a half bushel of lime and six pounds of sulphur in a close vessel: pour over it about six gallons of boiling water; add enough cold water to keep it in a semi-fluid state until cold. It is used as a wash, and applied to the trees and branches as high as can be reached. It should be applied two or three times during the summer.

Since this preparation was used no trees thus treated have been lost, although small limbs not coated with the mixture were attacked and destroyed. Carbolic acid has also been used without any perceptible difference in the result from the lime and sulphur mixture.

Boiled linseed oil applied to the trunk and limbs has been tried near Norfolk, Va., with marvelous cures, as reported. We mention this instance of the use of an extraordinary ingredient resulting in good effects as contrary to what is usually the result when using this application upon the body of trees, its effects being to seriously injure the trees if it does not destroy them.

Still another form of blight is doubtless caused by mechanical action, by the rupture of tissues consequent to a sudden superabundant flow of sap. This attacks only our most thrifty growing trees, either in early spring when vegetation first becomes active, or after a period of drought and partial vegetation, when abundant rains suddenly force out a luxuriant growth. Moderately vigorous trees are never attacked. It is often noticed in very vigorous trees that the bark of the trunk is split longitudinally. Whenever this is apparent such trees are always free from this form of blight, as the pressure upon the cellular and vascular tissues has been relieved. From a series of experiments, commencing in 1857, it is demonstrated that trees whose bark has been longitudinally incised and divided never show any signs of this form of blight.

Peculiar methods of culture undoubtedly influence the causes of blight; but upon this there exists a wide range of opinion. Clean culture and repeated stirring of the soil, while it may in many instances be conducive to most beneficial results, will often cause a total destruction of a pear orchard. In seasons of *zymotic fungoid* or *fire blight* highly cultivated trees fall early victims to the scourge, while those cultivated in grass, with an annual top dressing of manure, usually escape the contagion.

The third form of blight, caused by mechanical action, is seldom found in orchards when the soil is left undisturbed; but it is so common in gardens, or where the trees are thoroughly worked, that in many sections of the country it has become only a question of time for the entire destruction of one's orchard.

In the Southern States this form of blight is the most destructive, as it has become en-

demic to all highly cultivated soils. Wherever the land is allowed to become coated with grass or weeds, but kept cut down every few weeks, and an annual top dressing of manure is applied, the result has been most satisfactory in an abundant crop of fruit, and an almost entire freedom from blight.

P. J. BERCKMANS,
JOSIAH HOOPES,
For the Committee.

THE AMERICAN POMOLOGICAL SOCIETY'S LATE MEETING.—We noticed in our last the very interesting proceedings of this Society at its quarter centennial meeting held in Boston on the 10th September, and the unbounded hospitality and elegance displayed on the occasion. The junior editor of the *Rural Albanian* was also present on the occasion, and we give from his October number the following graphic description of the scenes he witnessed:

"I knew that never before was the science of pomology so thoroughly comprehended by the masses—that never before had the American Pomological Society embraced so wide a field of operation, and that the present session being the 'silver wedding' of the society, never before had such preparation, both as to completeness and magnitude, been made by those who were, in more ways than one, masters of the situation. Being of rather an over sanguine temperament, my hopes were ethereal and my expectations limited only by the cordon of impossibilities. Knowing well the enthusiasm, intelligence and indomitable energy of American pomologists, and the almost boundless means and hospitality of the Bostonians, I was prepared for such a feast of vision and flow of soul as the nineteenth century had never before witnessed. Great, grand and glorious as my anticipations were, they were destined to a very decided and very happy disappointment—the one half had not been imagined, even in my enthusiastic imagination! American pomology did itself unrivalled honor, and Boston taste, munificence and hospitality covered that ancient metropolis of art and science, literature and liberty, all over with undying glory. Those who have been fortunate enough to be participants in the mental, visual and festive delights of this grand occasion should treasure the remembrance as a happy heirloom for future generations, for, in my humble opinion, earth will never witness, until the millenium comes, a scene so full-fraught with the practical excellencies of the giant West with the gorgeous, fairy-like splendors of the glory-hued Orient!"

President Wilder, in his annual address to the American Pomological Society, assembled in Boston, said among other excellent things:

And were I never to address you again, I would repeat the counsel I have so often given, in regard to the production of new and fine fruits, viz:

"To plant the most mature and perfect seeds of the most hardy, vigorous and valuable varieties; and as a shorter process, insuring more certain and happy results, cross or hybridize your best fruits."

Before many years shall have passed my voice will be hushed in that stillness which knows no waking; but while I live I would continue to impress on your minds the importance of the beneficent work of providing these blessings for generations to come; and when I am dead I would by these words still speak to you. Thus will you advance one of the most delightful and important industries of the world; thus will you build up a pomology for the most favored nation upon which the sun ever shone; thus will you contribute to the welfare of home, kindred and country, and transmit your names to future generations as benefactors of your race—

"Our lips shall tell them to our sons,
And they again to theirs,
That generations yet unborn
May teach them to their heirs."

The Centennial Horticultural Society.

A meeting of many of the most distinguished horticulturists of the country was held in Philadelphia in September, at the instance of the Pennsylvania Horticultural Society, to take into consideration the propriety of forming an association for the proper direction and management of the horticultural department of the centennial anniversary exposition, to be held in 1876. The attendance was large in numbers and eminently respectable in character, and the proceedings, though entirely initiative in their character, were such as to give an earnest of the successful and harmonious execution of the plans suggested for the proper display of the horticultural productions of the country.

At the suggestion of Hon. Marshall P. Wilder, who, at the close of the session of the American Pomological Society at Boston came on to be present at this meeting, a committee was appointed to report the names of officers of the Society, and the following gentlemen were named and accepted by the meeting: President, Patrick Barry, Rochester, N. Y.; secretary, H. W. Harrison, Phila.; treasurer, Wm. Hacker, of Phila.; vice-presidents, Wm. Shaffer, Pa.; P. J. Berkman, Ga.; J. R. Warder, Ohio; W. C. Flagg, Ills.; W. C. Strong, Mass.; J. Strentzel, Cal.

An executive committee of twenty-five members was also chosen, and the President and any five members of the committee were empowered to add ten other members to it, if it should be found necessary or advisable. The committee is composed of the following gentlemen: J. Mitchell, of Philadelphia; P. Henderson, of New Jersey; J. L. Olmstead, of N. York; Wm. Saunders, of Washington; T. Meehan, of Philadelphia; George Ellwanger, of Rochester, N. Y.; S. B. Parsons, of Flushing, N. Y.; Chas. Downing, of Newburg, N. Y.; Dr. J. R. Warder, of Ohio; John J.

Thomas, of New York; Wm. Housley, of Kansas; C. W. Kern, of Missouri; Charles M. Hovey, of Boston; George Such, of South Amboy, N. J.; Thos. J. Pullen, of Hightstown, N. J.; W. D. Brackenridge, of Maryland; Dr. Swazey, of Alabama; Josiah Hoopes, of Pennsylvania; H. W. Sergeant, of New York; H. H. Hunewell, of Massachusetts; Hugh Graham, of Philadelphia; Dr. E. R. Hall, of Bristol, R. I.; N. Copeland, of Massachusetts; H. W. S. Cleveland, of Chicago; Robert Buist, of Philadelphia.

Vegetable Garden—Work for Nov.

The work of clearing up remains of this year's crops and of preparing for those of next is about all that specially demands attention now in the garden. It is a good time now in most gardens to plow and subsoil. The ameliorating influences of a winter's alternate freezings and thawings are very evident, especially upon stiff clays, and it is well to turn them up to be benefited by them.

Asparagus and *rhubarb* beds should be made now in preference to postponing it to the spring. The growth of both these plants begins very early in the season, which makes fall planting advisable. A good dressing of manure should be given both, and to the former an application of salt is desirable. Ashes are also useful, and *Kainit*, which will furnish even more potash, has had more effect upon some asparagus beds we have seen than in any other crop to which we have known it applied.

Roots that are to be stored away should now be dug, and either put into suitable caves or cellars, or secured as recommended in our last. After you have dug as many *parsnips* as you will probably require during the winter, the remainder will be improved by the freezing they will undergo if left in the ground.

Cabbages and *cauliflowers* may be kept safely by pulling them up and setting them, heads down, on a dry and high piece of ground, and covering them with four or five inches of earth. This covering should not, however, be put in too soon, it is time enough when the weather gets so cold that the ground is liable to freeze.

Spinach and *German sprouts* should receive, not too soon, some slight protection like straw or leaves.

Gather up your *tools* that will be no more needed this year. Have them put under cover, and protect the wood with a coat of paint. They should receive now whatever repairs are necessary, so that in spring you will be ready for the work which ever comes then with a rush.

A strong solution of carbolic acid and water poured into holes, kills all the ants it touches, and the survivors immediately take themselves off. So says a correspondent who has tried it on ants nesting in his garden.

The Dairy.

Cows Holding up their Milk.

Editors American Farmer:

Gentlemen,—I observe in September number of the Farmer an enquiry upon the subject of cows holding up their milk.

There is little doubt amongst those who have to milk cows that they do possess some control over their milk in the matter of holding it up when being milked, but not to the extent many would have us believe. "Beginner" says: "Is it probable that a cow taken from one locality and her accustomed milker, to another locality and a strange milker, will refuse to let down her milk." It is highly probable that a cow thus removed would hold up her milk for a few milkings sufficiently to make the milker's wrists ache, but I would be sorry indeed to give my cows in charge of a milker who could not get more than a quart of milk from a cow yielding two to two and a half gallons, no matter where her calf might be. If a cow having been well fed, kindly treated, carefully tended, and regularly and properly milked, be removed to a place where the opposite of all these is the treatment, then she may and will fall off in her milk very much, but from no other reason that has come under the writer's observation, providing, of course, that the cow retains her usual health. Cows, like other animals, like those who treat them kindly, and by kind treatment we do not mean foolish petting; pets are usually a nuisance, whether of the genus homo or otherwise.

I think it a good plan for those who milk cows to feed them with their choicest food, if they do not give them the whole of their food; for instance, if the cows are having mill feed, let the milker give it them, or if roots are given, as in the winter, give them, and so on with any thing the cows are very partial to. This, with a little stroking of their necks, &c., after milking, if there be the time to spare, is usually sufficient to put milkers and cows on pretty good terms with each other.

In conclusion I would just say, we must keep cows steadily up to their utmost yield if we would make the most of them, for if allowed to dwindle down to a low yield, they cannot again be brought up to their full capacity until after they have another calf.

Yours truly,

Y. B. A.

[We had recently a case which will illustrate our correspondent's note. Having lost a cow, we obtained from a friend at some distance a fine young animal to replace her; the latter was taken from a herd in which she had been raised, and with considerable trouble, and with probably some rough usage on the way, she was placed in the stable yard. She had been giving about four gallons of milk per day before she left her former home, but after she was installed in her new quarters,

the first day, being evidently much excited, she yielded less than half a gallon. She continued to fret and moan for several days, and the second day she gave less than a pint, and it was with much difficulty she could be led out of the yard to the pasture. She had, however, a kind, gentle milker, who always attended to her feeding in person, and after about a week's management with her, she began to resume her wonted status, and became as gentle as a lamb and easily milked, and soon gave nearly as much milk as she had originally done before her removal.—Eds. A. Far.]

Agricultural Prospect—The Farmer, &c.

To the Editors of the American Farmer:

My Dear Friends,—Your very kind favor of the 6th was duly received. I have often thought of you, your Farmer, and our numerous friends, and have as often wished I could write some cheering and stirring article for our numerous friends in our most valuable and ever welcome Farmer, for surely I have never seen our craft in greater need than of late. The murky clouds arising from disappointments in our wheat crop lowered heavily around us, which have been so sadly increased by the money crash. We are all deeply saddened, and feel as though any little light, however small, would now be so acceptable and gratefully received. At least such, my dear sirs, are my own feelings, and by our own we are much inclined to judge all others. Well might our highly esteemed old friend, Mr. Newton, again cry out, "What shall we do?" and well may we all seriously, and as wisely, as we can deeply reflect, *what can we do?* All, all has been thrown into wild confusion, and I fear the end is not yet. *Venture*, if it could be indulged in, seems perilous indeed. Many a well laid plan must be sadly checked, if not perfectly estopped. Things do indeed look gloomy, but, I trust in God, not yet desperate. 'Tis true we had already been forced to curtail much, but let us arouse and bestir ourselves, and learn wherein we can trim a little more closely, and cheerfully apply a little more of manly steam, and display a much greater confidence in the great God of us all, and we may yet come out safe, perhaps not quickly, but better late than never. The short wheat crop and its low price, with the confusion of our banks, were well calculated to depress us much, yet the good crop of corn, oats, hay, and the fine condition of our stock, should cheer us all to another and greater effort for the next year, and we should strive to spice our short wheat crop by adding on all of every other little thing we can. My son, sixteen years old, had to abandon his school, at least for this winter, on account of my bad health, and he has gone to work with a hearty good will, such as will almost always insure success, and all things seem brightening up under his spirited efforts; less of hirelings to pay, those we have do better and more work. He made his first effort in

threshing and cleaning a lot of orchard and timothy seed for market, and has as clean and nice an article of pure orchard grass seed of between eighty and one hundred bushels, as I ever have seen in any market, and fifteen bushels of timothy seed, and one hundred bushels of buckwheat, and is to-day gathering the best lot of pippins we have ever had.

We have a fine crop of apples, so with the orchard grass seed, timothy, buckwheat and apples, he hopes to more than make good our short crop of wheat. These seeds are for market, having enough for our own use besides. What is the chance for his getting a good price for them? His pork is in fine order, and whilst we so much disliked his having to stop school this winter, and perhaps for next year, we fondly hope the home training of sound, practical, useful sense will avail him much in completing and using his education hereafter, for of late I have greatly feared too many of our young people have been taught too little of the practical part of life's duties to make them the good, useful men God intended, and our country so much needs just now. I believe if our children now can be induced to spend only one-half of their time in studying books and the other half closely at some profitable trade or work, the next generation would be far more honest, virtuous, religious and useful men. Our farmers of Albemarle are now being fully aroused. I think we now have some six agricultural clubs. They have increased in number and usefulness very fast, and soon I hope to see every farmer in the county a useful and zealous member of them. I will write you more fully after our next meeting, the first Saturday in November, where, if I am able to be, I will try my hand to get them to subscribe and write for your *American Farmer*, and make it our *Farmer*, as also for the *Planter* and *Farmer* of Richmond. We Virginians and Marylanders should all try to raise these two agricultural papers fully up to what we all so much need, and it can easily be done to the good of us all, if we all will but do our individual part. My health is and has been quite feeble since I last wrote you, and since the receipt of yours I have been most severely afflicted with rheumatism in the kidney and bladder, so I could not write at all, and now write in great pain. Your notice, so kindly made, brought me many letters from Connecticut, Ohio, Pennsylvania, Maryland and North Carolina. One gentleman came on who liked and purchased over \$14,000 worth, but could not arrange the first payment. I still wish to sell, or rent, or lease, subject to a sale. I had rented out all my lands, and intended going to Charlottesville for this winter, but the tenants for this place failed, and thus compelled me to try to winter here. What has become of Mr. Newton and Jas. Smith? I almost fear to ask, as we are passing away so fast.

Yours truly, G. C. GILMER.

Albemarle Co., Va., Oct. 14, 1873.

[We are always happy to hear from our friend, and thank him most heartily for the

kindly feeling he ever manifests for the old *Farmer* and its editors. Our correspondent in this letter, we think, looks too gloomily upon the appearance of things. If the wheat has not been a *large* crop, it has generally been found this season to be a *very good* one, and those who may not be compelled to hasten their grain into market, will find ere long no objection to the price; at least that is our present opinion, and we think we are giving ample evidence in our pages to sustain us in it. The corn and other crops, according to his showing, are very remunerative. The late panic in the financial world will affect speculators and gamblers in stocks more than other classes, and the storm will soon pass over, and the atmosphere become clearer than ever. We candidly believe the farmers and planters have now the vantage ground, and if they will only "possess their souls in patience" for a while, the prospect for the future with them is far brighter than it has been for years. But they must "work and wait," and all things will come right. For ourselves, we must acknowledge that we have not had so strong a faith in the *good time coming* for years as we have at the present moment, and we are nerving ourselves up to an effort to make our old journal tell with powerful effect in the next volume, in its efforts for the promotion of the agricultural interests of all that section in which it most largely circulates. If all our friends will only second the exertions of Mr. Gilmer to increase its circulation and establish farmers' clubs in their respective localities, the end of the ensuing year will show the excellent results which will have attended their and our labors in the cause.—
Eds. Am. Far.]

Gunpowder Agricultural Club.

To the Editors of the American Farmer:

The regular meeting of the Gunpowder Agricultural Club, held Oct. 4th, inst., at the residence of Jno. D. Matthews, was well attended by its members, besides a large number of visitors, including Sam'l M. Rankin, Esq., who headed a delegation from the Baltimore County Club, Capt. McGinnis, of the Valley of Virginia, inventor of the new lime spreader, L. H. Cole, Esq., general agent for the same, Jas. L. Sutton, Esq., and others. The subject of discussion, the best system of farming to secure a permanent increase in the productiveness of our soils, evoked an interesting and spirited talk, protracted quite beyond the space usually allotted to this portion of the proceedings. We can scarcely say that anything new was elicited on this ancient but ever new, and for the farmer, all-absorbing topic. Well established principles were brought up, modified and enlarged. Lime was on all hands accepted as the indispensable base of permanent improvement, assisted and supplemented by barnyard manure, clover, plaster, and deep ploughing. In methods of application of lime, modes of increasing the stock of manures and plan of crop rotation, the sys-

tems followed were diverse. A few adhered to the common succession of crops, but most inclined to a departure therefrom, advocating the prime necessity of a sod which of course implies the keeping of cattle, (stock or dairy.) Such a system seemed plainly in the line of increased productiveness. Barnyard manure could by this plan be concentrated on a smaller area, and the vegetable matter accumulated. In evidence the fertility of the Worth, (Pa.) and Woolsey, (Md.) farms was cited. A sod cut from the former of 9 inches thickness was found to be a solid mass of roots; average yield of corn on the Worth farm had reached 120 bushels per acre.

The questions of the difference between crusted and calcined limestone having been mooted in the course of the discussion, Capt. McGinnis, when called on, explained in scientific terms, showing a thorough acquaintance with the subject, that in all the elements of plant food supplied by lime, the finely powdered stone was of equal effect with the calcined. Except to some soils, lime should never be applied but in the air-slacked state. In this state it loses nothing agriculturally valuable if kept under shelter, even in an indefinite period of time. The minute particles of lime act only by their surfaces, hence the finer the greater the number of surfaces presented.

Ploughing to the depth of a foot was sufficient, but in that matter he had a word of caution to utter, namely, that no more new soil should be brought up than could be immediately enriched, otherwise deep ploughing was temporarily a means of impoverishment.

The trial of the lime spreader provided for by the machinery committee of the Club, had taken place previous to organization. The lime was a perfect powder, hence in excellent condition for the experiment, but owing to the high wind prevailing was caught as it dropped from the machine and wafted away, thereby preventing an even distribution. Plaster, however, was not thus effected, and was most successfully and beautifully spread. The feeding is produced by an exceedingly ingenious device, by a knocking similar to that by which the grain is made to fall regularly and evenly from the hopper into the mill-burr. This device is remarkably simple.

The weather forbade any extended test. It is the intention of the committee on machinery to try the spreader on a large scale, after which their conclusions will be made public.

An elevator to assist the hay-fork was likewise exhibited and explained. Many, however, thought the pulleys answered the same purpose, with greater convenience and less expense. Thomas' Smoothing Harrow was also exhibited and highly commended by the farmer son of our host.

T. G.

THORNBURG & MCGINNIS' LIME AND FERTILIZER SPREADER.—Through an inadvertence the advertisement of this implement failed to appear in our Oct. issue. It will be found in its proper place in this number.

Failure of the Russian Grain Crop.

Partial and highly important information is received of the results of the grain crops in Russia, in reference to which so much interest has been manifested, both in Europe and America. According to an official circular recently issued by the Russian Minister of Agriculture, the drought in Southern Russia, known as the granary of Europe, has been much more extensive and severe than supposed. In some districts there is not only a short crop, but there is danger that the inhabitants will suffer for the want of food before the next harvest. The Province of Cherson has been parched by the drought to such an extent that the whole country looks like a vast solitude with all the grain turned to a crisp; the grain fields present a spectacle never before witnessed. In the districts of Odessa and Tiraspol the absence of all moisture has ruined the cereal fields, grass has been converted into hay on the meadows at this early date, the leaves on trees have turned yellow and fall. In the district of Oczallov starvation stares the population in the face, and a fat clay soil is devoured by the people in some localities, deprived as they are of food of any kind. The crop of Simferopol, in Tauria (the Crimea) in the meantime, is also reported to be a complete wreck, with no hay left, the surface presenting an uninterrupted waste of bleached vegetation. In Tecaterinoslav the heat has been intense, and nothing remains but some sickly-looking grain fields. Whatever there remained during midsummer the ground caterpillar has eaten, cutting the roots below the surface. Locusts have appeared in the country of the Don, Novo-Tshersk, driven away by scarcity of food from the remaining grain districts, and are now destroying the little left in the country. Great irregularities of growth both in this district and the other grain regions have, from the commencement of the season, been the most noticeable feature. The importance of this news can hardly be over-estimated. Southern Russia is the chief source of grain supply for the nations of Northern Europe, and these supplies are now not only cut off, but there is a probability that the inhabitants will become competitors for cereals at all the Mediterranean ports.

The position is serious. It is now evident that the margin between European supply and consumption will be exceedingly close. Extraordinary efforts will be required to bring forward the surplus of other grain producing countries in time to meet the deficiencies of France and England. The situation now stands thus: Europe will require this year nearly, if not quite, twice as much breadstuffs as usual, while the most important source of supply is cut off. That the news from Russia admits of later and better modifications is scarcely to be hoped. The Russian government would naturally be supposed to be sufficiently well informed of the facts before making an announcement to the world of so

portentous a character. The publication of the news was no doubt determined upon, and wisely so, as a precautionary and remedial measure, so as to lead to proper economies and foresight on the part of the people more directly concerned.

Later unfavorable news has also been received of the partial blight of the potato crop, which, until within a short time since, exhibited the most prosperous indication. The loss is estimated by Thomas C. Scott, the statistician, at a total of 1,600,000 tons, equal in money value at present prices in England, at from \$40,000,000 to \$45,000,000. The effect of this partial failure of the potato crop will, of course, be to augment the already large food requirements of the country, which are now likely to exceed last year's demand instead of falling below it, as was anticipated. It remains to be seen what effect the failure of the South Russia crop will produce upon prices. That it will stimulate competition for the world's surplus of breadstuffs cannot be doubted.

[We copy the above from the *Boston Cultivator*, and the information contained therein as to the Russian crops, is corroborated by Mr. Fulton, of the *American*, in his correspondence from Paris. By the way, we had the pleasure during the past month of congratulating Mr. F. upon his safe return home from his very interesting tour of Europe, a description of which, as given in his journal, should be published in a more permanent and accessible form to the reading public, as we believe it would be found, as a popular book of travels, unsurpassed in interest by that of any other recent traveler on the continent of Europe.—*Eds. Am. Far.]*

CROPS IN ENGLAND.—The editors of the *American Farmer* are frequently indebted to Dr. Geo. W. Andrews, of this city, for copies of journals published in the interior of Great Britain, in some of which we frequently find interesting facts relative to agriculture, horticulture, &c. From one of them just received, the *Exeter Post*, we make the following extract from a correspondent's wail about the English harvest:—

"Sir,—If you don't object I will occupy a small portion of your space by a few general observations, and first say a word or two on the harvest. It is now pretty well known to be a deficient one, even in good wheat-growing lands. The first evil omen was last autumn, when the continual rains so rotted the then newly sown seed that a re-sowing had to be resorted to, other portions were much thinned thereby, and a considerable portion had to be deferred upon spring sowing, which is generally very susceptible to rust, and this year rust has been very virulent and destructive; coupled with all this was the setting in of heavy rain about mid-harvest, and coming so

unexpectedly found but very few prepared for it, and consequently seriously damaged much that a foreknowledge of the weather might have rendered safe. Another effect of the rain has been the destroying of a great portion of the potato crop. Mangold, swedes and turnips suffered much from drought at first, and now, from excess of wet or some other cause, but very slight progress appears to be making in either, and will not be a good crop."

THE COTTON CROP.—The Agricultural Bureau Report for October says: The average condition of cotton in the first week of October, as compared with the October reports of 1871 and 1872, stands as much higher than that of the former year as it falls below the record of the latter. The standard crop being a good normal growth, the yearly losses from worms or other casualties almost always reduce the record below one hundred, and the greatest reduction usually occurs in September. The average this year has fallen off from 89 to 78½ since the first week of September, a larger reduction than usually occurs. The general average in October, 1871, was 76; it was 82 in October of last year.

The area was one-eighth greater in 1872, and the autumn more favorable for development and picking, and the result was an increase of about 1,000,000 bales. The area of the present year was increased about ten per cent., but a portion of the enlargement was abandoned, and the October status of the crop is materially reduced. The season must be of average length, and comparatively favorable for picking to insure a crop equal to that of last year. The State averages are as follows: Virginia 90, North Carolina 88, South Carolina 80, Georgia 82, Florida 76, Alabama 78, Mississippi 75, Louisiana 65, Texas 80, Arkansas 83, Tennessee 90, Missouri 90. Worms have continued their ravages, and made advances upon new territory in Arkansas and North Carolina. Several counties in the latter State report the presence of the caterpillar for the first time.

A disastrous storm destroyed much cotton in Florida and in adjacent States to the 19th. Much stained cotton is reported in the seaboard States. There is general complaint that the plants are already bare of leaves, and that the picking will be completed at an early date. In some counties of the Gulf States it is claimed that there will be an average crop, notwithstanding the caterpillar and boll worm, while in other counties the loss of one-third of the crop from worms is expected.

JERSEYS FOR BUTTER.—A farmer's wife writes: "I have made butter from Durhams and Devons and common cows; but I never saw any cow that would make so much butter and of such nice quality, in a year, as a Jersey; and if the Jersey cow be the cow for the gentleman who wants rich cream, she is also the cow for the farmer that wants gilt-edged butter."—*Boston Cultivator.*

IMPORTANT TO SUGAR PLANTERS.—We find in "*Our Home Journal*," published in N. Orleans, a drawing and description of "Roy's Sugar Cane Coverer," which was exhibited on the plantation of Mr. F. Roy, and, if it is found to answer the purpose designed, will be extremely valuable in the saving of labor, the all-important question of the present hour:

"As a comparison with hand covering cane with the hoe, it is claimed that the best hand with a hoe will cover about three-fourths of an acre of cane a day, and then it is not done uniformly, an item that is too much overlooked by our planters. To plant 100 acres of cane with the hoe, it will take ten hands about fifteen days, at a cost to the planter of at least \$1 each hand a day, making \$150. With the machine, two mules and one man, an acre can be covered in from thirty to forty minutes, or fifteen acres in one day of ten working hours, at a daily cost of, say fifty cents each mule, is \$1, and cost of one hand \$1, makes \$2 per day; doing the whole work inside of seven days, at a total cost of \$14—in less than half the time, far better and more uniform than is possible by hand and hoe. Thus in a hundred acres a planter saves the whole first cost of his machine, as shown below, while doing his work more than twice as fast, which is a great item in planting, as it should be done in dry weather and as quick as possible:

COVERING 100 ACRES BY HAND.	
Ten hands, at \$1 each per day, for fifteen days.....	\$150
COST OF COVERING BY MACHINE.	
First cost of machine.....	\$125
Seven days labor of one hand and two mules, at \$2.....	14
	<hr/> \$139

Thus saving the whole cost of machine and \$11 besides, and every year after the first giving him an actual gain of \$136, saying nothing of the advantages derived from better preparation of the cane by the machine, and the saving of labor at a season when most valuable; aside from the cane, the machine can be used for potatoes and other large seeds."

The editor of the *Journal* who witnessed the working of the machine on the plantation, says he saw some fine cane growing and nearly ripe, that had been covered last March and April by it; the stand was very regular and the canes of a uniform height, thus showing the advantage of putting an equal amount of earth upon cane; it will all come up and grow alike. Mr. Roy, whose address is New Orleans, has a number of orders for the machine from some of the most intelligent sugar planters, some of whom had seen it in operation at the Fair Grounds last spring.

The New York State Fair.

This exhibition, which is proverbially the farmers' fair of the country, is said to have been this year a most gratifying success. The new grounds at Albany occupied by the Society are about 50 acres in extent, and have cost, with the improvements, about \$170,000. The Country Gentleman says the buildings are the finest structures of their kind in the country. One of them, Manufacturers' Hall, is 252 feet long by 122 feet wide; the hall for machinery measures 182 by 68 feet; another is 201 by 51 feet; and Floral Hall, built of glass like a conservatory, has an octagon centre 60 feet across, with two wings each 50 by 30 feet. The stalls for cows occupy twelve buildings, each 195 feet long and 12 feet wide; eighteen others give quarters for bulls, horses, sheep and swine; and a handsome structure 100 by 50 feet contains the poultry.

The total number of entries was 2524—larger than for five years. Of Cattle there were 393 entries, including 44 Short-Horns, 48 Devons, 97 Ayrshires, 117 Jerseys, 13 Herefords, 29 Holsteins, and 45 of other classes. Of Horses in all classes, there were 194 entries; of Sheep, 244; Swine, 135; Poultry, 377. There were 394 entries of Farm, Garden and Dairy Products, and 394 of Implements.

The attendance was large and the meetings for discussion are reported to have attracted interested audiences and to have been well maintained. We have marked for insertion in the Farmer some extracts from these proceedings.

One of the daily papers of Albany in its report of the Fair says:—

"One thing can be safely asserted, and that is, that no fair ever held in this State gives such unqualified satisfaction. Every visitor, no matter what part of the State he or she may hail from, is enthusiastic over the arrangements, over the grounds, over the buildings, over the goods displayed in Manufacturers' Hall, over the stoves, which comprise the grandest exhibition of the kind in the world, over the machinery, over the poultry, over the horses—the best exhibition of horses ever made by the State Society—over the cattle, sheep and swine; over the grand display of agricultural implements—a display that has never been surpassed anywhere, and that covers acres upon acres of ground, and over Floral Hall, which is simply a palace of beauty."

THE REPORT of the Commissioner of Agriculture, for 1872, has been furnished us by the Department, and Commissioner Watts will accept our thanks therefor. Congress made provision for publishing but a very small number of this document, and consequently the Department has been able to supply but few copies except to its own correspondents and the editorial fraternity. We may draw from this Report, for the benefit of our readers, extracts from the various able papers it contains.

The American Farmer

AND

RURAL REGISTER.

PUBLISHED ON THE FIRST OF EVERY MONTH
By SAML. SANDS & SON,

No. 9 North street, near Baltimore street, Balti-
more, Md. (sign of the Golden Plow.)

SAML. SANDS, } Editors and Proprietors.
WM. B. SANDS, }

SUBSCRIPTION, \$1.50 a year, in advance. To Clubs of five or more, \$1.00 each. For \$10 eleven copies will be sent.

ADVERTISING RATES.

	1 Mo.	3 Mo.	6 Mo.	1 Year.
One Square, 10 lines....	\$ 1.50	\$ 4.00	\$ 7.00	\$ 12.00
Quarter Page.....	6.00	15.00	22.50	35.00
Half Page.....	12.00	25.00	40.00	70.00
One Page.....	20.00	45.00	75.00	120.00

Cover Pages subject to special contract.
Transient Advertisements payable in advance—all others quarterly.

Advertisements should reach us by the 30th of the month, to secure insertion in the succeeding issue.

BALTIMORE, MD., NOVEMBER 1, 1873.

To the Friends of the American Farmer.

Another issue of our paper will close the volume for the year. In view of its early termination, we make the request that each one of our present subscribers will constitute himself or herself an agent for increasing our circulation for the coming year. From the many testimonials we receive from our readers, we believe our efforts on behalf of the agricultural cause are appreciated. That there will be no relaxation from these efforts, we beg to assure all who read these lines. We point back to a long series of years, during which the *interests of the farmer* have been our main object. There will be no falling off, so far as we are concerned. We are not, however, entirely unselfish in our motives. We give, we believe, to our readers the full equivalent of the subscription money they pay, and it is important to us that the number of these should be continually enlarging. Without imputation of vanity, we believe, we can say the Farmer contains for the section into which it mainly goes, matter which is as useful, appropriate, practical and pertinent as can be elsewhere obtained. We point with pride to the character of our readers and

correspondents, embracing as those of the American Farmer have always done, the first men of the land for intelligence, worth, and public spirit. Are we not, then, justified in calling upon our friends for such help as they can render us in widening the bounds of our usefulness? The subscription price, \$1.50, low enough in itself, is reduced to \$1.00 in clubs of five or more subscribers, an amount which does not pay the absolute cost of the mechanical production of the paper. Our patronage of advertising depends upon the circulation of our journal, and from this fact the friends of the Farmer will see the necessity for us to keep this circulation ever on the increase. There is no county seat, no post-office, in any State within the number comprised in our area of general circulation, where a small club, *at least*, could not be raised for the Farmer, and where clubs already exist, where such cannot be increased. Will not our friends see to it that we are properly represented everywhere?

Besides the help our own subscribers can give us, we want active persons everywhere to push the Farmer as a business operation. Please put such in communication with us, or send us their names and address.

To all who will act for us we offer liberal returns. We cannot expect that any will spend their time and labor in efforts for us without reward. To all we ask attention to our premium list. The articles there are offered without competition. There is, however, an additional list, to which especial notice is requested, which our senior offers, and which is above and supplemental to the regular lists, depending for its awards upon the numerical superiority of the clubs received. Another special premium is offered to the ladies. A number of these last year favored us with clubs. The coming year, to her who sends us the largest, we will have the pleasure of awarding a prize which may prove a household treasure.

Another word: A large number of our friends have heretofore, in sending on clubs, declined to accept the premiums to which they were entitled by the lists forwarded, on the ground that their efforts were for the good of their people, or the promotion of agricultural improvement. To such we naturally feel a delicacy in addressing any requests for aid. We only say any further help they can render us will be gratefully received.

The date up to which clubs for premiums are received is March 31st. Our terms

are in *advance*, and the cash is always acceptable, but this year, as last, when our friends can give us the assurance that the money will reach us by the date given, for any names they may send, the delay in remitting will be admissible. We know a proper discrimination will be made, and we cannot expect our friends to canvass for us and also advance the money when subscribers are not conveniently situated to make the payment down, as is often the case in the country.

MR. NEWTON ON THE FINANCIAL SITUATION.—Mr. Newton, it will be seen from his letter addressed to Mr. London, of N. Y., and forwarded to the *American Farmer* for publication, again draws the attention of the public mind to the necessity of a radical change in the monetary system of the country. The subject is one of great interest, as it is one on which the opinions even of the best informed widely vary as to the remedies for the evils from which we suffer. The President, Gen. Grant, has recently been interviewed upon the subject, and seems, from his reported remarks in the papers, decidedly favorable to an early resumption of specie payments and a system of free banking, based upon government bonds,—and the most influential papers of the country are evidently favoring a move in the same direction. The difficulties in the way, however, are such, that the most eminent statesmen of both the great political parties, differ upon the means and the time when resumption should take place. During the recent canvass in Ohio, Mr. *Thurman*, the distinguished Senator from that State, made a speech at Kenton, devoted to the financial situation, a large portion of which had reference to resumption, in which we are told, “he reviewed the causes which led to the late panic, and then discussed the remedies proposed. He divided the country into creditor States—New York, Pennsylvania and New England, and debtor States—the Western and Southern. The effect of the resumption of specie payment, in his opinion, would compel every man who owes \$5 to pay \$6, and would have a most crushing effect upon the debtor States.” On this subject he continued: “I do not believe that the business of the country can ever be carried on with an irredeemable paper currency. I believe that to do so would result in the destruction of the best interests of this country. But I do now say to you that in my judgment it would be most unwise for the United States to yield to this clamor of the creditor States, and undertake in the

forthcoming Congress, which meets next December, to force a resumption of specie payment upon the country without delay. I shall go to Congress next December, if God spares my life, determined that while I will advocate a resumption of specie payment as soon as it can reasonably be effected, I will not crush the debtor class for the benefit of those who now are their creditors, and who are already in easy, and most of them in affluent circumstances of life.”

In regard to the panic, President Grant, in a letter under his own signature, to a New York bank president, which appears in the morning papers of to-day, (the 16th,) says:—

“I do not believe the present panic will work to individuals half the injury it will work general good to the country at large. Our monetary system is the creation of necessity. It has no elasticity, but in other respects it is the best that has ever been devised. No one now distrusts the value of his paper dollar; on the contrary, it is seized and hoarded with the same avidity now that the gold dollar has been in former like adversities. The panic will call attention to the defects in our monetary system; and will, no doubt, lead to legislation to relieve the want of elasticity.”

“The panic has brought greenbacks about to a par with silver. I wonder that silver is not already coming into the market to supply the deficiency in the circulating medium. When it does come—and I predict that it will soon—we will have made a rapid stride toward specie payments. Currency will never go below silver after that.”

COAL AND IRON.—The London Times of late has displayed some considerable anxiety about the change which is apparently taking place in the iron trade of England, and has intimated that the loss to that country of the customers she has enjoyed in this is very imminent. A committee of Parliament has recently investigated the cause of the falling off in the trade, and instead of attributing it to the shortness of the coal supply, places it to the credit of the strikes of the miners which are so frequently taking place. The Times predicts that the worst is yet to come in the disasters to the iron interest. It is said that some classes of American iron are now being successfully introduced into competition with the English article on their own soil.

Mr. Joshua Thomas, well known as the general agent of the Buckeye Reaping and Mowing Machines, is also an extensive dealer in mill furnishing goods, threshers and cleaners, clover hullers, &c. Parties who are in need of such articles will doubtless do well to put themselves in correspondence with him, as his facilities are such as to enable him to supply them promptly and efficiently.

LIST OF PREMIUMS

Offered for clubs of subscribers to the *American Farmer* for 1874. Subscriptions can be sent either at the regular rate of \$1.50 each, or at the club rate of \$1 each. The table shows the number of names required at each rate to secure the articles offered.

ARTICLES.	Value of Premium	No. Subscribers at	
		\$1.50	\$1.00
No.			
1. A collection of Flower or Garden Seeds, or an assortment of Plants and Vines of same value.....	\$5 00	10	20
2. A \$10 collection of Seeds, or of Plants and Vines.....	10 00	20	40
3. A \$20 assortment of Seeds, or Plants and Trees, your own selection, from any of our advertisers.....	20 00	40	80
4. Howe Sewing Machine, with Cover and Attachments complete.....	70 00	80	175
5. Grover & Baker Sewing Machine, with Cover and Attachments complete.....	70 00	80	175
6. Bickford Knitting Machine.....	25 00	40	80
7. Silver-Plated Revolving Butter Cooler.....	10 00	20	40
8. Silver-Plated Breakfast Castor....	8 00	15	30
9. Silver-Plated Ice Pitcher.....	15 00	30	60
10. Silver-Plated Cake Basket.....	12 00	25	50
11. Silver-Plated Fruit Dish.....	10 00	20	40
12. Set of Silver-Plated Teaspoons....	6 00	12	25
13. Set of Silver-Plated Tablespoons..	11 00	20	50
14. Set of Silver-Plated Table Forks ..	11 00	20	50
15. Silver-Plated Pie Knife.....	4 00	8	16
16. Child's Silver-Plated Cup.....	3 00	6	12
17. Solid Silver Fruit Knife.....	3 00	6	12
18. Silver-Plated Cream Ladle.....	1 50	4	8
19. Set of Dessert Knives, Ivory Handles.....	6 00	12	25
20. Superior Quality Carving Knife, Fork and steel.....	6 00	12	25
21. Gold Pen and Silver Case.....	3 00	6	12
22. American Gold Hunting-Case Watch.....	60 00	100	225
23. American Silver Hunting-Case Watch.....	35 00	60	130
24. Webster's Unabridged Pictorial Dictionary.....	12 00	20	50
25. Webster's National Dictionary.....	5 00	10	25
26. Dexter Single - Barrel Breech Loader.....	22 50	40	75
27. Dexter Double - Barrel Breech Loader.....	50 00	75	160
28. Set of Light Buggy Harness.....	30 00	60	100
29. Gentleman's Fine Saddle.....	20 00	40	75
30. A pure bred Cotswold, Southdown or Shropshire down Ram.....	40 00	80	120
31. A thoroughbred Jersey, Ayrshire or Devon Bull Calf.....	75 00	120	200
32. A thoroughbred Shorthorn Bull Calf.....	100 00	150	250
33. A pair of pure bred Essex or Berkshire Pigs.....	30 00	60	100
34. A pair of pure Chester White Pigs.....	25 00	50	80
35. Fairbanks' Portable Platform Scales.....	25 00	40	70
36. Fairbanks' Union or Family Scales.....	14 00	25	50
37. Fairbanks' Counter Scales.....	10 00	20	40
38. Fairbanks' Trip Scales.....	5 50	10	20
39. Set Mathematical Drawing Instruments.....	4 00	8	16
40. One year's subscription to the American Farmer.....	1 50		10

For any premium in this list, we can substitute, if desired, any agricultural implement for sale by any of our advertisers, agricultural or other books, nursery stock, &c., &c., of the same value as the offered premium.

All new subscribers whose names are received, whether singly or in clubs, before December 31st, will receive FREE the October, November and December numbers of this year.

Subscribers need not all be at one post-office, nor is it necessary for the names to be all sent at once.

Send the exact money with each list of names, and state in each letter that you are working for a premium.

This offer of premiums holds good till April 1st, 1874, but any premium will be sent upon demand, as soon as the proper number of names is received, with the money, to entitle the sender to the premium designated, but no name will count unless the money for it is paid by or before the date the premium is claimed. There is no competition. Every one gets what he has worked for, and may make his own selection.

Both old and new subscribers count in these lists.

Specimen numbers, blanks, posters, &c., furnished on application.

REMIT ALWAYS, when possible, by registered letter, post office order, or draft.

We want agents everywhere to extend the circulation of *The American Farmer*. An examination of the above premium list will show it is extremely liberal in its terms, and that the articles offered will give a wide choice, and are as good as the money. We will, however, be willing to pay a cash commission to parties who have facilities for making up clubs, and should be glad to hear from such as would prefer to be compensated in that way for their time and trouble.

SPECIAL PREMIUMS.—The following are offered to the attention of canvassers:

GOLD PREMIUMS.

In addition to the above list of premiums, the Senior Editor of the *American Farmer* offers,

For the largest list of subscribers (not less than 100) from one person, **\$50 in Gold.**

For the second largest list of subscribers (not less than 100) from one person, **\$30 in Gold.**

For the third largest list of subscribers (not less than 75) from one person, **\$15 in Gold.**

For the fourth largest list of subscribers (not less than 50) from one person, **\$5 in Gold.**

LADY'S PREMIUM.

For the largest club forwarded to the *American Farmer* for 1874 by a lady, we will give a first class *Family Sewing Machine*, with equipments complete, price \$70.

TAKE NOTICE.—These special premiums are given in addition to such other premiums as the several persons winning them may be entitled to and choose from our regular list.—The terms upon which they are offered are the same. The special premiums will be awarded April 1st, 1874.

Address all letters plainly, to

SAML. SANDS & SON,
Publishers *American Farmer*,
No. 9 North St., Baltimore, Md.

TOBACCO CULTURE.—The paper from Mr. White, in the present number, completes the series upon the cultivation of "the weed" in the Connecticut Valley, and will be found peculiarly valuable, as it is a summing up of the whole process detailed in his former communications, as well as a history of its origin and great advance in that quarter, the effects of which are so graphically portrayed by Mr. W. in the increased prosperity and present wealth of those engaged in the business. We tender our thanks to our correspondent for the very prompt and able manner in which he so generously responded to our request to furnish for the readers of the *American Farmer* the instruction he has given in these papers—and no doubt many of them will avail of the hints thus presented to improve their mode of culture of this great staple of our country—for although the peculiar soil of Connecticut may have much to do with the value of the production, yet the management of the crop in its culture and after preparation has doubtless mainly led to the pecuniary results attained.

IMMIGRATION FROM GERMANY.—The great drain upon the population of Germany through the instrumentality of immigration agents and other persons, has so alarmed the German government as to induce it to take measures to restrict it in the future, and although this cannot be completely effectual, yet it is evident that the immense stream of emigrants to the United States will to a considerable extent be diminished.

GRAIN FOR EUROPE.—The financial panic being pretty well over, shipments of grain soon recommenced. One of our daily journals, in the first week of October, remarked: "There were two clearances of vessels for Queenstown, Ireland, yesterday, with cargoes of grain—the Russian bark *Sampo*, with 42,947 bushels corn, and the Austrian brig *Ahto*, with 33,411 bushels wheat."

The Knickerbocker Life Insurance Company of New York.—This old established company with assets stated to be upwards of eight and a quarter millions of dollars, has had an agency in this city for a number of years, and we believe that many of our best known citizens have their lives insured therein. Messrs. Wm. E. Brown & Co. are the agents in this city. It is a very comfortable reflection to one whose family is mainly dependant upon his personal efforts whilst spared to them, to have the assurance that if taken away, provision has been made out of his surplus earnings to secure such support as will save them from being thrown upon the cold charities of the world, and perhaps no more ready means to accomplish this end, is to be found than in a reliable and well conducted insurance company.

A GOOD IDEA, AND WORTHY OF IMITATION.

—The following from our friend, Mr. Upshur, of Nansemond Co., Va., strikes out as a new idea to further the circulation of the old *American Farmer*. Mr. U., with many others, has availed of our aid in the purchase of live stock, and knows how earnestly we are striving, through our journal and other means, to disseminate the best breeds of domestic animals throughout the South, where, through the operations of the war, they have been so sadly destroyed.

Mr. Upshur's plan is thus presented (his advertisement will be found in our advertising pages for this month):—

To the Editors of the American Farmer:

Please give the enclosed advertisement one insertion and send bill. You see I hope to get up a club for the *Farmer* in somewhat a new way, an idea I got from the "National Live Stock Journal." My Berkshires are very fine, and have representatives from Europe, Canada, and from several breeders in this country, (Crozier, &c.) I think I can beat any I saw at Baltimore last fall a long way. I suppose you would like to hear from the young heifers you sent me some time since. Well, neither proved to be in calf, but both were served by my own bull, a handsome three year old herd-book animal, dark fawn and full black points. The little one, "Maud," from Mr. Matthews, has just given me a beautiful female calf, and has an enormous bag; she is now about 1½ years old, or little over, and I think she will give about 2½ gallons of milk per day at least, and very probably 3 gallons. The heifer (herd-book) Margaret, from Mr. Tyson, is due 24th Sept. (day after to-morrow)—she has been giving milk for about a month, I suppose, at least the boy tells me another calf has been sucking her for some time.

☞ The offer of Mr. Rice, of N. J., to sell his herd of pure Ayrshires should attract the attention of farmers and others engaged in or about commencing the milk or cheese dairying, as such a chance of obtaining a number of pure bred animals of this breed of cattle is rarely to be obtained this side of the New England States or Canada. For those who supply the markets with milk, or for the purposes of a cheese dairy, the Ayrshires are undoubtedly the most profitable of all others; for the butter dairy we would decidedly prefer the Alderneys.

EXPORTS FROM NEW YORK.—The following shows the exports, exclusive of specie from New York to foreign ports for the week ending Oct. 14, and since the beginning of the year:

	1871.	1872.	1873.
For the week...	\$ 5,009,059	\$ 6,225,767	\$ 7,025,771
Prev. reported..	178,348,249	171,363,333	223,544,358
Since Jan. 1.....	\$183,257,301	\$177,589,100	\$230,570,129

The Hudson Corn.

We have a number of reports of the products of this corn from the small packages we sent out in the spring. With some few exceptions, which have been reported to us verbally, where the drought was assigned as the cause of failure, the corn seems generally to have done well, producing from two to six ears on a stalk.

We have no more of this seed, and no interest in its dissemination, having only distributed it to our friends for them to test in a small way.

A correspondent, M. D. S., in Caldwell co., N. C., writes us: "I must tell you about my Hudson prolific corn that you sent me, 59 grains. [Our friend hardly got his fair quota.] Out of that number 48 came up and made corn, and every stalk has from two to three ears on it. It is about twenty days earlier than our common corn, and I think a very good corn. Corn is not near so good in this country this year as last. Wheat one-third short. Oats were very good. We have had a very wet season."

Another, G. W. R., in Halifax co., Va., says, "The Hudson corn you sent me did remarkably well, considering the long dry spell we had. No stalk has less than two ears, except a few that were planted too near a tree. I am well pleased with it."

Another, Mr. M. Templeton, of West Middletown, Washington co., Pa., writes: "The Hudson corn you sent me was planted. It seems to have from two to six ears to the stalk. I think it will prove to be a very profitable field corn. I will use all I raised from what you sent for seed this coming season."

The agricultural editor of the Cincinnati Enquirer says of this corn in that paper:—

"I received last spring from Samuel Sands & Son, editors of the American Farmer, a pound of field corn. They wrote me that a man in the vicinity of Baltimore [in Virginia] had grown one hundred and seventy bushels on an acre. Of this they had proof that was conclusive. I am almost ashamed to tell what a poor chance I gave this corn. I planted it the 30th day of May in a pear orchard: seven rows six rods long, the rows three feet three inches apart, and the hills two feet six inches. I plowed it but three times with a three shovel plow, and did not thin it, and there was a third too many stalks on the ground. I have been through it row by row, and find it will average one stalk with two ears to each hill, and occasionally three large ears to a stalk. I believe if it had been thinned and tended as well as my main crop was that over three-fourths of the stalks would have had twin ears. As it is, I shall have about two hundred and fifty stalks with more than one ear each, and next year will be able to plant several acres, and feel sanguine that I shall succeed

in raising a large crop. If a variety can be established that will raise two ears to the stalk, a large addition to the crop will be the result."

"The Carrollton," is the name of the splendid new hotel recently erected in Baltimore on the site of the famous old Fountain Inn, so long and favorably known to the traveling public, especially from the South, where the good things of life, for which our city is distinguished, were ever richly enjoyed. The building is perfectly new, from the foundation stone to the topmost turret, and for all the conveniences of such an establishment, is, we venture to assert, unsurpassed by any other in the country. Mr. Coleman, the lessee, is an old stager in the business, and for thirty years has been favorably known in his profession, and is the right man in the right place to make the Carrollton one of the most popular hotels in the United States. As an evidence of the elegance and attractiveness of the house, it was recently stated in one of our city papers, that on one occasion during the week there were no less than twenty-four bridal parties seated at the ladies' ordinary at dinner on the same day. Mr. Coleman shows his good judgment in availing of the old *Farmer* to attract the attention of the best classes of the Middle and Southern States to his splendid establishment.

SALES OF BERKSHIRES FROM MUIRKIRK.—Mr. Coffin reports sales as follows: S. T. C. Brown, Sykesville, Md., 1 boar; S. Rowland Carson, Port Deposit, Md., 1 boar; Geo. W. Rodgers, South Boston Depot, Va., 1 boar, 2 sows; R. L. Nelson, Orange C. H., Va., 2 sows; A. A. Browne, Accomac C. H., Va., 1 boar, 1 sow; Dr. Nichols, Government Insane Asylum, Washington, D. C., 1 boar, 1 sow; Thos. M. Harvey, Spring Grove, Chester co., Pa., 1 boar, 2 sows; Milton Dance, Baltimore, Md., 1 boar, 2 sows; F. M. Charles, Tarboro', N. C., 1 boar, 1 sow; Claude Matthews, Clinton, Vermillion co., Ind., 1 boar; B. H. Johnson, Washington, D. C., 1 boar.

CIRCULAR OF THE MARYLAND INSTITUTION FOR THE DEAF AND DUMB.—This institution at Frederick, Md., is supported and controlled by the State, and is a school and not an asylum, its aim being to give each pupil a good common school education. It is, however, practically free, those pupils who are unable to pay being admitted, without charge, to all its advantages, upon presenting the proper certificate. The directors desire that the benefits of the Institution may be enjoyed by all the deaf mute children of the State, that none may grow up in ignorance, and the benevolent everywhere and those who may meet with uneducated deaf mutes are requested to communicate with the officers, and to use their influence with parents and guardians to have such children sent to the Institution. Address the Principal at Frederick, Md.

Books, &c., Received.

THE PERFECT HORSE, by William H. H. Murray, with an introduction by Rev. Henry Ward Beecher, and a treatise on Agriculture and the Horse, by Hon. Geo. B. Loring. Illustrated. pp. 480. Price \$4. Published by Messrs. James R. Osgood & Co., Boston, and for sale by Messrs. Cushings & Bailey, Balto. The author of this book says, and that he speaks truly may be seen all through it, that he writes it from a love of the subject. It is no less apparent that he knows all about it too, and the result is a work full of enthusiasm, but also full of the soundest and most practical sense. While all his readers will not agree with him in his views as to "blood" or as to the breeding of fine trotting horses becoming a profitable branch of agriculture in America, yet the wisdom and the frankness which pervade the whole volume, so different from many pretentious and boastful treatises on the same subject, cannot fail to impress and improve those who closely follow the author. To a young man about engaging in raising horses this work would prove invaluable, comprising in a moderate compass well digested and carefully arranged material which would otherwise have to be sought for through much chaff. The work is divided into chapters, embracing how to know, breed, train, shoe, and drive the perfect horse, and in each of these much valuable and practical information will be found.

BREECH LOADERS, by "Gloan." pp. 192. Illustrated. Price \$2. The Orange Judd Co., New York, publishers.

This neat little volume, evidently written by an author who understands his subject, treats of the history, construction, mechanism and management of breech-loading guns, and is written in an easy and attractive style, which will make it as agreeable to the expert as to the tyro. Chapters are added on the value of field sports, game laws and field philosophy, which may be read with advantage by all who aim to become thorough sportsmen.

We have received, through the *Baltimore News Co.*, from Messrs. *T. B. Peterson & Bro.*, Philadelphia, copies of "**HIDE AND SEEK**," "**THE DEAD SECRET**" and "**AFTER DARK**," three of the well known novels of Wilkie Collins, a new and cheap edition of whose works is now being published by this enterprising house. Mr. Collins is undoubtedly one of the most popular of living novelists, and the fact that he is now about delivering in this country a course of lectures somewhat similar to the readings of his friend, Charles Dickens, will cause a demand for his works which will be well met by the edition of which these volumes are specimens. They are clearly printed on good paper. The price of the first two is 75 cents each, of the last 50 cents.

Catalogues of **JOHN SAUL**, Washington, D. C. No. 1, Fruits; No. 3, Wholesale Catalogue and Price List; No. 5, Descriptive Catalogue of Roses; No. 6, Plants; No. 7, Dutch and

other Bulbs. These catalogues cover an assortment in all departments of the Florist's and Nurseryman's business probably unsurpassed in this country. Copies of the Catalogues can be had at our office.

From the *Baltimore News Company* we have **BARTHOLOMEW'S SCHOOL DRAWING CARDS**, published by Woolworth, Ainsworth & Co., New York. Well adapted for the development and guidance of a talent for drawing in children, and arranged in graduated series, suitable for use either at home or in school.

HINTS ON CHEESE MAKING, for the Dairyman, Factoryman and the Manufacturer. By T. D. Curtis, Editor *Utica Herald*, pp. 112. This little book, just received as we go to press, seems to contain exactly the information which beginners in cheese dairying need. The author is the highest authority in this business, and we shall probably draw upon its pages for some extracts, though to those interested in the subject we recommend the procuring of a copy.

☞ The firm of **S. B. Parsons & Sons**, (formerly **Parsons & Co.**) of Flushing, L. I., whose advertisement will be seen elsewhere, is one of the oldest established in this country in the nursery line, and their stock of rare trees, *Rhododendrons*, *Azaleas*, *Camelias*, &c., is for quality and extent, we believe, unsurpassed.

NATIONAL CROP REPORTER.—This is the title of a new paper, the character of which is indicated by the name. It is published weekly, by a Co-operative Association, at Jacksonville, Ill., at \$5 per annum. From an examination of the numbers received, with every desire to see all attempts at the dissemination of useful knowledge meeting with success, we cannot consider that this work can be made more available or reliable than the *Monthly and Annual Reports* from the *Agricultural Bureau*. To the statistician and man of leisure, whose taste runs in that direction, it may be of interest and amusement—but for the generality of farmers, we do not think it will be found of practical value.

☞ Gentlemen in want of **Furnishing Goods**, dress shirts, or any of the minor articles which are necessary to complete the equipment of the outer man, are referred to **Mr. Stratton's** advertisement in our supplement. He is prepared to supply all such requirements in good taste and quality.

☞ Those of our readers who have produce to ship to this city are referred to the advertisement of **Mr. F. E. Marine**, to be found elsewhere in our columns. From what we know of this gentleman, we believe that all business entrusted to his charge will be carefully and promptly attended to.

The Carroll County (Md.) Agricultural Society.

The show of this Society was held Sept. 30 to Oct. 3, and was one of the most successful in its experience. The weather was very favorable and the attendance large. On one day of the fair President Grant attended, and on another Governor Whyte, of Maryland, and their presence was an additional attraction to numbers to visit the beautiful grounds which this Society occupies at Westminster. We spent a day at the show, and found a large and interesting display of improved live stock, agricultural products, and farm machinery and implements. Quite a large number of Jerseys were exhibited, prominent among which were the herds of Mr. Lewis H. Cole, Mr. Orndorff, and Hon. J. E. Smith. Some Short-Horns were shown, and the Devons were well represented, animals from the Patterson herd of Mr. S. T. C. Brown being on the ground to the number of about forty head, making a display of great beauty, much admired by all visitors. The entries of sheep and swine were fair in quality and number, and of horses above the average of most county shows.

A very good show was made of farm and garden products, and the household department embraced a great variety of useful and ornamental articles of ladies' handiwork.

Among the principal exhibitors of machinery and implements were the Taylor Manufacturing Company, and Wagoner & Matthews, of Westminster. A specialty of the former is threshers and separators and horse-powers, and they had also a very handsomely made spring tooth rake, which they produce in large numbers, the woodwork of which is made entirely of Virginia walnut. A fine line of plows, adapted to all uses was also exhibited. Of our Baltimore firms we noticed that Mr. Durborow had the Kirby reaper on the grounds.

The great novelty of this show was the trial of the lime and manure spreader of Thornburg & McGinness, to which we have heretofore alluded in the *Farmer*. We saw it tested with lime and plaster, and the distribution of those materials was very regularly performed and easily regulated. There was no manure or compost at hand that the machine could be used in spreading, but from what we saw of its operation we are convinced that the machine will prove a success. The device which secures the distribution of the materials to be spread is a very simple and very old one, but its application to the present purpose was never before attempted, and the inventor certainly seems to have made a lucky hit. We will probably have occasion to speak elsewhere of the performances of

this spreader. We are glad to know of the flourishing condition of this Society. Its success has in no slight measure resulted from the energetic and unceasing efforts of its secretary, Col. W. A. McKellip, and it is with regret that we learn that after the present year he will decline longer to serve in the office he now holds, the demands of his private business rendering it impossible for him to undertake the labors which seem naturally to fall upon the secretary of a county society, especially when he is so able and efficient as our friend McK.

THE FINANCIAL PANIC AND THE FARMERS.
 —A prominent fact was developed during the late panic, that as soon as the banks and capitalists on this side of the water ceased, from supposed prudential motives, to furnish the means to move the crops which were just being made ready for market, the gold of Europe was immediately forwarded by millions to purchase our breadstuffs, cotton, &c., and as stated elsewhere, the shipments were greater than ever known before, and a N. Y. daily of a subsequent date, says that "during each of the two preceding weeks the produce shipments from this port reached, even under the pressure of the most serious financial embarrassments, the unusually high value of about \$6,500,000. For the week ending yesterday we find them credited with the almost unprecedented total of \$8,378,130. It seems exceedingly probable that next week will show an advance upon this large sum. The shipping movement from New York finds its counterpart in the exceptionally large receipts and shipments at Western ports. Taking Chicago as the best representative of these, we find for the week ending last Saturday the following returns: Of flour, 36,008 barrels had been shipped, against 30,529 in the corresponding week of 1872. Of corn, wheat, and other varieties of grain, the shipments were 3,379,231 bushels, against 2,566,890 for the corresponding week of last year."

ANOTHER ASSOCIATED DAIRY IN MARYLAND.—Some enterprising farmers of Harford county have organized to begin a factory, as recommended in our pages. Dr. David Harlan, an old subscriber and friend of the *Farmer*, has been kind enough to furnish us the following details of the proposed operations:

"Only the initial steps have been taken. Under the act of assembly of 1868, the association is organized. The shares are one hundred, of the value of one hundred dollars each. A lot of 1½ acres has been purchased, and two acres rented. The foundation is dug for a building 30 by 60 feet; the basement to be of stone work, and upon this two stories of wood. It is proposed to have the fixtures or furniture for butter, cheese, and ice cream; that either can be manufactured at a profit by the varying price of each article in the market. It will afford me pleasure to inform you from time to time of our action."

INSECTS INJURIOUS TO CROPS.—The Department of Agriculture is issuing a circular for collecting the results of the season's experience in systematic warfare upon insects.—Attempts at protection against these pests have been more general and persistent than ever before. In many instances great success is claimed in the use of arsenical compounds. The circular says that the annual losses of cotton from the ravages of cotton insects amount possibly to 500,000 bales in years of insect prevalence. A letter dated 24th Sept. to the editors of the *American Farmer*, from South Carolina, from a planter who had purchased some Jersey Cattle through our agency, says, "Nothing but the almost total loss of my Cotton crop from boll worm, an enemy I have never seen before, though a planter for over thirty years, prevents my ordering two more heifers this Fall, as I intended. A month ago my prospect for a fine cotton crop was good—now I will not make more than one-third or one-fourth a crop. Fortunately the boll-worm has appeared in but few crops in this section. Some of my neighbors have already picked 1500 lbs. of seed cotton per acre, and will get 400 or 500 lbs. more—this on the uplands of Marlboro' Co. Of course these are fields which have been well manured, and would not be true of large plantations. One of my young friends who made 40 bales last year with two mules, will do better this—will probably make a bale to the acre on upland."

ALDERNEYS FOR THE SOUTH.—The same correspondent says, "I have sold my Jersey calf, to be delivered at our county fair on the 8th Oct. I think this breed will be in great demand in this region as soon as their merits as milkers are more generally known. Few here can keep many cattle, the freedmen having acquired quite a taste for beef, and where one or two milch cows are wanted for family use, I am sure the Jerseys will be the best to keep. My Jersey bull has been kept this summer on my plantation on the river in a good pasture, but received no more care than my native Devons; he has been in perfect health and has grown remarkably well. All my calves next spring will be half Jerseys. One of my neighbors bought my Jersey calf for \$60."

HEAVY EXPORTATIONS.—The week after the financial panic was considered as at an end, the exportation of produce from the U. States was larger than ever before known, and reached nearly double those of the same period last year. This shows a healthy condition of the business of the country, and that the damage sustained by the panic has principally been confined to the bankers and brokers who were overtrading in stocks, &c. Large amounts of gold are being received from Europe to purchase our cotton, breadstuffs and provisions, and as the importations are decreasing, the balance of trade will soon be in our favor. So mote it be.

QUEEN ANNE'S CO., MD.—Our friend, Mr. E. B. Emory, writes us as follows of the crops, the Hudson corn, &c.:

"Your kind favor containing a head of California wheat was duly received. Allow me to return to you many thanks for it. We farmers owe you much for your efforts to supply us with new varieties of grain. The sample of Hudson prolific corn which you sent me last spring I planted on the poorest piece of land which I had, in order to test its worth; much of it twinned, and I consider that it has yielded me one third more than my own corn, which I consider a good variety. Its quality has been much improved by being grown on our lands, though I am afraid that it cannot be sold strictly as a white corn, from the fact that on some of the ears I find straw colored grains. By care in selecting seed, however, this difficulty may be overcome. My phosphate making so far has been quite a success. I judge it has given satisfaction, from the fact that I have received many more orders than I have been able to fill. It drills well in all the improved drills, notwithstanding the large amount of potash which it contains. The corn crop in this locality we consider short; there is not more than two-thirds of a crop made. Unfortunately, but few late potatoes were planted, owing to the scarcity of seed and the enormous price which they commanded in the spring. The crop bids fair to yield well. But little wheat has been seeded; owing to continuous wet weather the land has become completely saturated, so much so that plowing on low lands has been much backened, and prospects for a full crop next year are gloomy. It is now so late that many farmers will have to shorten their acreage for the want of time to get it in wheat."

THE BREAD PROSPECT IN EUROPE.—In our last, among other items of news from reliable sources, of the shortness of the grain crops of Europe, we gave an extract from a letter of the editor of the *Baltimore American*, then in Paris, confirming these reports: a subsequent letter from Mr. Fulton says, "It is not in France alone that there has been a failure of the wheat crop, but in both Russia and Hungary there is a great deficiency. The potato crop in England and Ireland has also largely failed, all of which will tend to cause a large demand for the excessive crops of the United States."

NORTH CAROLINA CROPS.—A correspondent at Laurenceburg, N. C., writes us, that "The corn crop throughout this section is good, but the cotton has been badly injured by the heavy floods of rain, and rust. A few days ago I saw one field of cotton nearly destroyed by the cotton worm. Some of our people are busy sowing *erab grass* hay, which when well cured, is as good, if not better, than most of the *Northern* hay sent South, and besides is a great deal cheaper. Horses and cattle are fond of it. I hope to save some three or four thousand pounds of it."

Commercial and Farm Yard Manures.

We present the accompanying letter of Prof. Elzey to our readers, not so much that it commends a manufactured fertilizer in which we have always had a great deal of confidence, as from the position it takes with regard to the use of stimulating artificial manures, and their use independent of the natural sources of supply of the farm. The employment of commercial manures in the present state of our agriculture may be said in most cases to be absolutely necessary, but the disposition often evinced to rely entirely upon them to the exclusion of green crops and stable manures is fraught with much danger, as we have in the *Farmer* often urged, and the contrary practice recommended by the writer of the following letter is sound doctrine.

Dr. Elzey is professor of agriculture at the Agricultural and Mechanical College of Va.

Messrs. J. J. Turner & Co.:

Gentlemen,—I suppose I am indebted to your courtesy for a copy of the Baltimore American of late date containing a letter addressed to you by my friend, Robt. Beverly, Esq., of Virginia. That is a very high testimonial, for Mr. Beverly is in all respects one of the first men in Virginia. I am pleased to see that his opinion and experience of your Excelsior corresponds so fully with my own. His idea is forcibly put in the comparison between the exhaustive effects of the purely stimulating fertilizers on land and the destructive results of regular whiskey drinking, with regard to those fertilizers, and is eminently true. It is also eminently true that those farmers who fail to utilize all the resources of the farm in the preparation of manure are sure to be losers in the long run. Let me say, however, that your Excelsior is not amenable to that criticism. A brief explanation of the principle involved is as follows: Plant food may be divided into two classes—mineral matter and nitrogen. The presence of excessive proportions of either stimulates the plant to an unusual growth at the expense of the other. Ammonia also acts upon the soil chemically, so as to render soluble and available to the plant an increased amount of the minerals of the soil. From these facts it is very plain that the use of fertilizers containing a maximum of ammonia and a minimum of alkaline and earthy salts found in the ashes of agricultural plants necessarily and rapidly exhausts the land of mineral plant food to that extent that no amount of nitrogen can produce a crop. The converse of this proposition is also true in a more limited sense, inasmuch as some nitrogen is derived from the atmosphere by the plant.

The common sense of this whole thing is, then, give us a fertilizer in which the mineral and nitrogenous elements of plant food are well balanced, which may be continuously used with constant benefit to the soil and steady increase of crop. Such seems to have

been your aim, and such the purpose you have successfully accomplished in the production of your Excelsior, which, so far as I know, was the first commercial fertilizer offered to the public manufactured on those principles. It may seem unpardonable in me to be giving my opinions unasked so freely, and addressing at such length gentlemen to whom I am unknown. This is not the result of any undue sense of the importance of my opinions, but of the great interest I feel in these matters. If by the use of gypsum we can procure a heavy growth of clover to plough in, the nitrogen thus supplied, and that derived from the atmosphere will be sufficient, and by the application, I think we can secure a maximum crop of wheat. But, unfortunately, the universal experience is, that after clover has been grown for a series of years the land becomes "clover-sick," and refuses to produce it. In this state of affairs it has appeared to me that the pea might be substituted for clover with great advantage, and that after a time clover might grow again. It seems to be true that the exhaustion of the guano supply is a thing of the near future. I hope you have turned your attention to the substitution of an economical and efficient nitrogenous element in fertilizers of the excelsior class.

In conclusion, I must ask you to excuse me for this long letter. I remain with great respect, yours, &c.,

M. G. ELZEY.

Blacksburg, Va., Sept. 19, 1873.

LUCERNE IN NORTH CAROLINA.—A friend in Lenoir county, to whom last spring we sent a supply of this seed, writes us, under date of Oct. 13: "I made a failure with lucerne. The land was so run over, indeed, shingled over with a single weed, which is called wild mustard, (its botanical name I do not know, it is quite pungent.) that when the lucerne was 6 or 7 inches high, and I turned my cows upon it, the milk was so offensive, both to the taste and smell, that it could not be used. The negroes even could not use it. I shall try it again next spring on the same land, which has been well and cleanly cultivated in cabbages."

ROLLERS.—A roller exhibited and tested at the Royal Society's Show, just held, consists of three sections, the novelty being that the central section, instead of being on a line with the other two, is placed in front, so that it answers as a steering wheel. In the axle between the two rear sections there is a double joint, so as to admit of their adapting themselves, as they move, to irregularities of surface. The sections are made of iron, with solid sides, so that they can be filled with water, if it is desired to increase their weight.

We would again call the attention of our readers to the high importance of rolling their land after seeding, and before if the soil is very cloddy. Roll and harrow, seed and cover. On light soil especially always roll after seeding, even cotton and corn.

The Florist.

Floriculture, &c.—November, 1873.

By W. D. BRACKENRIDGE, Florist and Nurseryman,
Govanstown, Baltimore county, Md.

The Green-House.

At the moment we write the Dahlias, Tuberoses, Verbenas, Cannas and Heliotropes are profusely in bloom, so mild has been the weather, but this state of things should not prevent the preparation and housing of such plants as are tender, or should be well established in the pots before the cold, cloudy season sets in. The kinds we have in view are Carnations, Geraniums, Heliotropes, Colchus, Vincas, Bouvardias, Euphorbias and Jasmines, and the way to perform this work we particularized last month. Cuttings of Verbenas should be put in during the early part of the month; trim to one or two eyes, and any leaves that are long should be pinched off; pure sand is the best in which to insert them, settle the whole well by a good watering, and in a temperature of 55° they will be ready to pot off in three to four weeks. Roses can also be propagated in the same way by taking cuttings of the fall growths from 1 to 1½ inches long, leaving only one bud at the top, observing to shorten back the leaves a little; the Teas, Bourbons, Bengals and Noisette kinds make roots about as freely as Geraniums, or even Verbenas, while the Hybrid Perpetuals and Moss kinds are more tardy in rooting.

After the leaves have gone into decay, of plants as Achimenes, Gloxinias, Gesnerias, Caladiums, and the Lily tribe, the pots containing the roots should be placed away in a tolerable warm situation, receiving little water, so long as they are dormant, and so soon as they show signs of growing they should be shaken out of the old and repotted in fresh light earth.

Chrysanthemums, Salvias and Geraniums that have done blooming, the two first should be cut well down, removed from the stage, so as not to crowd other and more seasonable plants, while the Geraniums may be pruned more moderately, and the tips put in as cuttings.

Give air freely in fine weather to both greenhouses and cold frames, and all decayed leaves, with weeds, should find no place in any well kept greenhouse or conservatory.

Pleasure Grounds and Flower Garden.

Continue to plant deciduous shrubs and trees, directions for which were given last month. We prefer planting such kinds of trees in the fall, for two reasons; the first of these is that roots are formed during the winter, so that the tree is ready to start into growth in early spring, and will not require mulching the first summer, and secondly, spring brings, as a usual thing, more work with it than can be well attended to, independent of tree

planting, as well as the after care required in nursing them through the hot weather.

After the first frost, choosing a dry day, take up roots of Dahlias, Gladiolus, Tigridias, Tuberoses and Caladiums. All but the last should have the earth removed and the roots laid out to dry in a shady situation, after which store them away in a dry cellar or under the green-house stage, so that frost may not reach them. The various kinds of Cannas and Tritomas, when taken up, should have some earth left about their roots, and receive a position underneath the green-house stage, where they will receive a little light. The article in your last number by "Jane Boswell Moore," on her rustic arbor, pleases us very much, relating as she does so simply yet so elegantly the pleasure she enjoyed in that self-constructed arbor. We do not wish to dictate what people should do in order to add to the beauty and comfort of parks and lawns, both public and private, but what we would moot is this, that almost everywhere on entering a pleasure garden there is found to be a great want of well shaded seated rustic bowers, where on a hot summer day the tired pedestrian can rest himself. In private places much of this work could be done in the winter season, when other out-door labor is not practicable, by having the proper wood cut now, and stored away, ready to be dressed and put together at a convenient season.

W. D. B.

Papers from a Garden—No. 3.

BY JANE BOSWELL MOORE.

I have been tearing down vines from lattice-work, poles and trellis. In sultry summer days their shade was most welcome, but whenever the sun is at all endurable, I believe in having as much of it as possible. Open the windows these fall days, and let it flood the house. Not only will it do good to every house-plant, but living human plants will find new life and vigor. My arbor is among the things of the past, for it is more pleasant to bask in the sun these October days than to chill one's blood under shade. But we will always remember it with gratitude. On the rude table of boards within, and rustic seats, many a lesson in those charming child geographies of Miss Hall's, "Our World," with its fascinating stories of different lands, and gems of pictures, has been stamped on childish minds. And my garden has helped them, not a little, to understand the pictures of stately palms, floating lillies, huge ferns, curious plants, aloes, cacti, gloomy evergreens, and funeral cypress, interspersed as these are with views of Alpine peaks, Swiss chalets, frozen Arctic scenes, volcanoes, and landscapes wondrous in beauty. Geography was not so presented in my young days. We waded through columns of dry long-forgotten names, learnt the dullest statistics, and incredible as it may seem, parrot-like, spent hours learning the names of counties, and county towns in each. But the world

moves, and sunlight enters clouded brains, as it streamed in on spaces enclosed by vines, when I tore them down to-day. The leaves are piled carefully, and will form an excellent protection for tender roses through winter months. I do not begin to cover them until December, as they may rot the roots before, but then the compost of dead leaves, earth and litter is made about six inches deep or more. Last winter, as all know, was very severe, the cold here being great, yet thus covered, tender roses withstood it, and bloomed abundantly this summer. My neighbors' established hardy climbing roses, that had grown very high, unprotected, were so hurt that the plants died down to the roots, and had to sprout again. I make it a rule, not knowing how severe the cold may be, to cover all somewhat. They are not hurt, and are apt to be safe. My collection of Vick's asters, French and German, were exceedingly beautiful this year. I never saw flowers more perfectly double, quilled, and full. These, of purest white, very deep rich purple, bright rose, pink, pale purple, sky-blue, crimson, violet, scarlet, with lovely bouquet dahlias have been the chief attractions of the garden. The dwarf bouquet varieties are curious, looking like miniature bouquets set in the ground. Yet as one great pleasure with me, is the making daily choice bouquets for house decoration, I prefer the taller kinds which can be used for this purpose. I remove all flowers, save a few for seed, as soon as they are perfect. It is better to give them away.

THE FAIR SEASON.—We have not space sufficient to give full accounts of the various State and county, and other fairs. All seem, however, from the reports at hand, to have been well attended. In this State the Frederick County show appears to have been very successful, the number of visitors being very great.

The Farmers' Council of Virginia, of which Major R. H. Gaines, of Charlotte, is President, meets at Petersburg on the 25th inst.

DOMESTIC RECIPES.

HOP YEAST.—Take a pound and a half of raw potato, grated, a quart of boiling water, in which a handful of hops have been boiled, a teacup of white coffee sugar, half a teacup of salt; when almost cold add about half a pint of good yeast to start it. One pint of this yeast will make four good sized loaves of bread.

FRIED BREAD.—Beat an egg with milk and sugar, cut in slices a stale French twist, soak them in the milk, and when soft fry brown in a pan with a little lard.

POTATO PUDDING.—Boil and mash eight large Irish potatoes. Put to them half a pound of butter, five eggs, sugar to taste, a glass of wine, the peel of two and the juice of one lemon, four or five teaspoonfuls of cream, and half a nutmeg. Bake in crust.

Baltimore Markets, Oct. 22.

The quotations below are Wholesale Prices.

Breadstuffs.—**Flour**—Market dull. We quote prices about as follows: Howard St Super, \$4.75a 5.50; do. common to fair Extra, \$6a 25; do. good to choice do. \$6.50a 6.75; do. Family, \$7.25a 8.75. Ohio and Indiana Super, \$4.75a 5.50; do. common to fair Extra, \$6a 25; do. good to choice do., \$6.50a 6.75; do. Family, \$7a 8.50. City Mills Super, \$6a 50; do. low to medium Extra, \$6.25a 7; do. Rio brands do., \$7.75a \$8; City fancy brands, \$10.50a 11.

Wheat—Receipts light and market dull. Prices steady at \$1.56a 1.60 for good Southern white; \$1.55a 1.68 for fair to good Southern red; \$1.70 for prime do.; \$1.75 for choice amber.

Corn—No Southern in market. Western white, 66 cts; mixed from elevator, 62 cts.

Oats—Receipts moderate, and demand fair. Sales of Southern at 50a 51 cts., and Western quoted at 49 cts for mixed and 52 for bright.

Rye—Receipts light. Sales at 82 cents for fair quality.

Cotton—Market steady, with prices for cash ruling as follows: Middling, 15½a 16 cts.; low mid. ling, 15a 15½ cts.; good ordinary, 14½a 14¾ cts. Time sales are made at about ¼ cent above these figures.

Hay and Straw—New York and Penna hay, \$23a 26; prime western, \$24a 27; prime Cecil co., Md., \$27a 28. Rye straw, \$30. Oat straw, \$16a 18 per ton.

Mill Feed—City Mills brown stuff, 16a 17 cts.; light middlings, 22 cts.; heavy do. 40 cts. Western bran and shipstuf, \$17a 19 per ton.

Provisions—Bulk Shoulders, 8½ cts; clear rib sides, 9 cts. Bacon—Shoulders, 8½ cts.; clear rib sides, 9½ cts. Ham, 14a 15 cts. Lard, 8½a 9½ cts. Mess Pork \$17 per bbl.

Rice—Carolina, 8½a 8¾ cts. Rangoon, 6½a 7 cts.

Salt—Ground alum, \$1.45a 1.50; fine, \$2.15a 2.30 per sack; Turk's Island, 30a 35 cts. per bushel.

Live Stock—**Beef Cattle**—Market dull. Prices range from 3 cents for thin ones to 6 cen a for best on sale.

Hogs—Supply large. We quote 5½a 6½ cts. net.

Sheep—Dull. Supply full. We quote 4a 5 cts. gross.

Wool—Good washed, 28a 30 cents; tub washed, 43 a 45 cents; pulled, 32a 35 cents.

Whiskey—Western, 97 cents.

NEW ADVERTISEMENTS.

Win. E. Brown & Co.—Agents Knickerbocker In. Co. R. B. Coleman—Carrollton Hotel.

J. J. Turner & Co.—Ammon'd Bone Superphosphate.

Joshua Thomas—Agricultural Implements, &c.

Southern Fine Stock Co.—Cattle, Hogs, &c. for sale.

L. E. Rice—Ayrshire Cows for sale.

C. L. Upshur—Berkshire Boars for sale.

S. B. Parsons & Sons—Rhododendrons, &c. for sale.

C. E. Coffin—Ferrets for sale.

D. E. Fouts—Horse and Cattle Powders.

Symington Bros. & Co—Oil of Vitriol.

FOR SALE OR EXCHANGE.

I offer for sale my Herd of between 40 and 50 Ayrshire Cows, Heifers and Calves. They have been very carefully bred for Milkers. Or I will exchange the whole Herd for good Real Estate.

Arrangements can be made for keeping until the first of April next.

nov.-19

L. E. RICE,
Princeton, New Jersey.

PATTERSON DEVONS.



Having on hand a superior lot of young DEVONS from 6 to 18 months old, bred from the Patterson Herd, I am prepared to fill all orders at reasonable prices.

oct-68

S. T. C. BROWN,
Sykesville, Maryland,

**SOUTHERN
FINE STOCK CO.**
Gallatin, Tenn.

Have for sale the best Breeds of
Cattle and Hogs,
EVERY VARIETY OF
POULTRY and PETS, &c.
And all at the very Lowest
Prices.

Send for our large Illustrated
Pamphlet, and see how you lose
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**SOUTHERN
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REDCLIFFE FARM.

FOR SALE,
15 Berkshire Boars,
3 1-2 Months old,
WARRANTED PURE BLOOD,

And bred from Stock from some of the first Breeders
in this country, boxed and delivered in Norfolk or Suf-
folk, Va., for \$7 each. Also, will be given as a premium
to those purchasing Stock, a copy of the AMERICAN
FARMER, 1 year. ALDERNEY CALVES, both sexes,
SOUTHDOWN SHEEP, AYLESBURY DUCKS, and
BRONZE TURKEYS. Address,

C. L. UPSHUR, Redcliffe Farm,
nov-tf CHUCKATUCK, VA.

RHODODENDRONS,
Camellias, Chinese Azaleas, and
Hardy Evergreens,
Deciduous Trees and Shrubs,
with Roses.

For Catalogues apply to

S. B. PARSONS & SONS,
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TO COTTON GROWERS.

**J. J. TURNER & CO'S
AMMONIATED
BONE SUPERPHOSPHATE
ANALYSIS.**

Ammonia, - - - - -	2.83
Soluble Phosphate of Lime, - - - - -	29.51
Bone Phosphate of Lime, - - - - -	10.67

Composed of the most concentrated materials, it is

Richer in Ammonia and Soluble Phosphates
THAN ANY OTHER FERTILIZER SOLD.

Uniform quality guaranteed. Fine and dry, in excellent order for drilling. Packed in bags.

PRICE \$50 PER TON.

J. J. TURNER & CO.,
42 Pratt street, Baltimore, Md.

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THE AMERICAN FARMER

FARMERS SAVINGS BANK!!

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SAVINGS BANK INSURANCE A SPECIALTY.

Every Policy shows its cash surrender value at the end of the First, Second, Third and every year of the continuance of the Policy.

EXAMPLE.

ENDOWMENT—At 30, \$1000 payable at 40, or at previous death. Premium \$88.23. Cash surrender value at end of first year, \$77.74; at end of second, \$162.15; end of fifth year, \$440.02, or \$1.13 LESS than the amount paid in.

Payable at Death or 75—Age 40, \$1000. Premium \$34.01. Cash surrender value at end of second year, \$18; at end of third year, \$35.56.

☞ We respectfully call the attention of the public to the above card, and can assure them that no other Company offers so great an inducement for the investment of their money where so large a return is guaranteed, and brings LIFE INSURANCE WITHIN THE REACH OF ALL.

Parties desiring information or insurance in this Company will address or call upon the undersigned, who will take pleasure in furnishing it.

WM. E. BROWN & CO., Gen'l Agents, 22 Second St., Baltimore.

nov-1y

“THE CARROLLTON.”

This new and beautiful Hotel, located upon the site of “Old Fountain Hotel,” extended by an elegant front on Baltimore street, is convenient alike to the business man and the tourist.

It is the only Hotel in Baltimore of the new style, embracing

ELEVATORS, SUITS OF ROOMS, with BATHS,

And all conveniences; perfect ventilation and light throughout, and was planned and built as a Hotel, new from its foundation.

Its elegant and convenient Office and Exchange Room, with Telegraph, &c., will at all times be at the disposal of the merchants and citizens of the city.

The location of the Ladies' Entrance on Baltimore street, and the beautiful Drawing Rooms connected therewith, will give to families more than the usual degree of quietude and seclusion.

The undersigned refers to his career of over thirty years as a Hotel Manager in New York and Baltimore, and feels confident, that with a new and modern house, he can give entire satisfaction to his guests.

To accommodate Merchants and others who visit Baltimore, the proprietor will charge \$3 per day for the rooms on fourth and fifth floors, making the difference on account of the elevation. Ordinary transient rates for lower floors, \$4 per day.

R. B. COLEMAN, Proprietor.

BALTIMORE, Md.

nov-1y

ADVERTISING SHEET.

WM. STUART SYMINGTON.

THOS. A. SYMINGTON

PATAPSCO CHEMICAL WORKS.

SYMINGTON BROS. & CO.,

MANUFACTURERS OF

OIL VITRIOL

AND OTHER CHEMICALS.

Works on Locust Point, }
Office, 44 South street, } Baltimore.

nov-ly

\$1.000

REWARD
For any case of Blind,
Bleeding, Itching or Ul-
cerated Piles, that DE-
BING'S PILE REMEDY
fails to cure. Prepared
expressly to cure Piles
and nothing else. Sold by all Druggists. Price \$1.

FOUTZ'S
CELEBRATED

Horse and Cattle Powders.



This preparation, long and favorably known, will thoroughly re-invigorate broken down and low-spirited horses, by strengthening and cleansing the stomach and intestines.

It is a sure preventive of all diseases incident to this animal, such as LUNG FEVER, GLANDERS, YELLOW WATER, HEAVES, COUGHS, DISTEMPER, FEVERS, FOUNDER, LOSS OF APPETITE AND VITAL ENERGY, &c. Its use improves the wind, increases the appetite—gives a smooth and glossy skin—and transforms the miserable skeleton into a fine-looking and spirited horse.



To keepers of Cows this preparation is invaluable. It is a sure preventive against Rinderpest, Hollow Horn, etc. It has been proven by actual experiment to increase the quantity of milk and cream twenty per cent, and make the butter firm and sweet. In fattening cattle, it gives them an appetite, loosens their hide, and makes them thrive much faster.

In all diseases of Swine, such as Coughs, Ulcers in the Lungs, Liver, &c., this article acts as a specific. By putting from one-half a paper to a paper in a barrel of swill the above diseases will be eradicated or entirely prevented. If given in time, a certain preventive and cure for the Hog Cholera.



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For sale by Druggists and Storekeepers throughout the United States, Canada and South America.

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oct

to sell, or to exchange for BERK-
SHIRE PIGS, a SOUTHDOWN
Address
EDITORS AMERICAN FARMER.

THORNBURG & M'GINNIS' Lime and Fertilizer Spreader,

PATENTED 1873.

This machine spreads chip manures, fine barn-yard manures, and broadcasts lime, plaster, ashes and super-phosphates; and also drills the same in rows any desired distance apart, taking two rows at a time, at rates of any quantity per acre down as low as one bushel. It also broadcasts small grains with fertilizers on lands too rough for the drill.

THORNBURG & M'GINNIS,
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East Chester Nurseries.

FRUIT TREES,
ORNAMENTAL TREES,
BEDDING PLANTS, &c.
Grape Vines, Raspberries, Strawber-
ries and other Small Fruits.

HARDY HERBACEOUS PLANTS.

SEND FOR PRICE LIST.

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MANUFACTURERS OF PURE
NO. 1 GROUND PLASTER.
C. S. & E. B. FREY,

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And dealers in Corn Husks. Always buying and pay
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FOR CORN HUSKS. feb
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STATIONERS AND BLANK BOOK
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Dealers in WRITING, PRINTING AND WRAPPING
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GEORGE PAGE & CO.,
Machinists & Founders.

Portable and Stationary Steam Engines and
Boilers, Patent Portable CIRCULAR SAW MILLS,
Portable Grist Mills, Horse Powers, Leffel's
Turbine Water Wheel, &c.

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feb-1y

BALTIMORE, MD.

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GENERAL AGENT FOR

THE KIRBY MOWERS and REAPERS,

AND DEALER IN

AGRICULTURAL IMPLEMENTS,

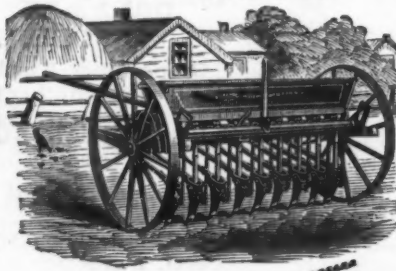
Cucumber Pumps, Seeds, Fertilizers, &c.

COE'S Unrivalled SUPER-PHOSPHATE, \$50 per Ton.

BICKFORD & HUFFMAN'S

SUPERIOR

GRAIN



DRILL,

THE ONLY

GRAIN DRILL

PERFECT

IN THE WORLD

HAVING A SUCCESSFUL FERTILIZER ATTACHMENT.

Certain in Distribution, accurate in measurement of Seed used, and possessing more facilities and conveniences for adjustment to quantity, and practical operations in the field than any or all other Drills manufactured. ALSO, AGENT FOR

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WITH 4, 6 OR 8 HORSE-POWER.

Sole Agent for BALL'S CELEBRATED STEEL PLOUGHS. These Ploughs are of very Light Draft, and easily convertible into cast or combination by the farmer. Send for a Circular. Also, PERUVIAN GUANO, and BONES of all grades.

JOHN C. DURBOROW,

No. 55 Light Street, near Pratt, Baltimore, Md.

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Cor. North and Monument Sts., Baltimore, Md.

MANTELS, MONUMENTS, and STATUARY,
GRAVESTONES AND TABLE TOPS,

MARBLE COUNTERS, for Banks, Hotels and Druggists,

TILES FOR FLOORS, GARDEN STATUARY, constantly on hand,
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IMPORTANT TO FARMERS, DAIRYMEN AND COUNTRY MERCHANTS!

FLETCHER E. MARINE, **GENERAL COMMISSION MERCHANT,**

ESTABLISHED 1855,

No. 45 West Pratt Street, Baltimore, Md.

Dealer in Flour, Meal, Grain and Feed, Hay and Straw, Dried Fruit, Butter and Cheese, Guano and other Fertilizers; also Lumber, Staves, and Tan Bark.

Consignments of produce, &c., respectfully solicited. Our charges are only the customary commission and the legitimate expenses of transportation and handling in the city.

20,000 bushels of **ASHES** on hand.

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IMPORTANT IMPROVEMENT IN FERTILIZERS.

German Potash Salts,

Imported directly from the mines, high and low tests.

Orders of Manufacturers promptly executed in deliveries to suit.

STOCK ON HAND FOR SALE VERY CHEAP.

Muriate of Potash, Kainit, &c.

Also for sale, **GROUND BONE**, guaranteed strictly pure, testing 4.112 Ammonia, 47.010 Bone Phosphate of Lime; **GUANO**, &c. **PLEASE CALL FOR CIRCULARS.**

TATE, MÜLLER & CO.

52 S. Gay St., Baltimore, Md.

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D. KNOX, late of R. Sinclair & Co.

WILLIAM DICKSON.

D. KNOX & CO.

DEALERS IN

AGRICULTURAL IMPLEMENTS & MACHINERY.

GROWERS AND IMPORTERS OF,

Garden, Field and Flower SEEDS,
Trees, Plants, Fertilizers, &c.

Agents for DOTT'S WASHING MACHINES, CUCUMBER PUMPS, MONTGOMERY'S WHEAT FAN, "SUPERIOR" MOWER AND REAPER.

No. 2 HOWELL'S BLOCK,

CAMDEN STREET, NEAR SHARP, BALTIMORE, MD.



oct-12t

THE AMERICAN FARMER

BURNS & SLOAN,
No. 132 LIGHT STREET WHARF,
BALTIMORE, MD.

BUILDING LUMBER, SHINGLES,
ASH, OAK and WALNUT.
LIME, BRICKS, SASH & MILL WORK.

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THE
CELEBRATED CLOTHIERS
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Announce the introduction of a plan of ordering
CLOTHING AND UNDERWEAR BY LETTER,
To which they call your special attention. They will send on application their improved
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line of samples from their immense stock of
Cloths, Cassimeres, Coatings, Shirtings, &c., &c.
A large and well-assorted stock of **READY-MADE CLOTHING** always on hand,
together with a full line of **FURNISHING GOODS.**

NOAH WALKER & CO.

Manufacturers and Dealers in Men's and Boys' Clothing and Furnishing Goods,
either Ready-Made or Made to Order.

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FOR SALE
A VALUABLE AND ATTRACTIVE
FARM ON TIDE WATER, VA.

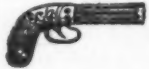
The subscriber offers for sale his Farm in Northumberland Co., Va., comprising about 1600 ACRES OF LAND situated on the Potomac and Cone Rivers. All the Farm is river-bottom land, adapted to grain and grass culture, and particularly desirable for trucking and fruit raising—the soil being well suited for all kinds of vegetables as well as the staple crops. There are 1,000 acres arable land, the balance in valuable timber of all kinds. Attached to the Farm are invaluable Oyster cores, noted as producing the finest Oysters of this section. There is a wharf on the property and three steamers from Baltimore and Washington land there every week, with the prospect of a daily line to Point Lookout, Md.—12 miles across the Potomac—upon the completion of the Southern Md. R. R. The time either from Baltimore or Washington only 8 hours. The improvements consist of a good BRICK DWELLING of four rooms, smoke, dairy and poultry houses, barn, granary and corn cribs, and three outbuildings, of four rooms each, for laborers. The whole place is under good chestnut fencing, and thoroughly drained. The Farm will be sold entire, or if found desirable will be divided into parcels of, say, 50 acres, more or less. It is well situated for such division, and, in that event, will offer very superior inducements to purchasers. Terms will be made liberal. Parties desiring to inspect the land can take the steamers either at Baltimore or Washington, and land on the Farm.

For further particulars, address the Editors of the "American Farmer," Baltimore, or

DR. JAMES SMITH,
Heathsville, Northumberland Co., Va.

oct

The GERRISH CABINET ORGANS,
In Imperial Cases, with flexible sliding cover,
New style, and Superior in Tone and Touch to all other Organs. At very low prices. Send for Circulars and Price List to JAMES M. DEEMS, Agent, corner Baltimore and Paca streets, over the People's Bank, BALTIMORE, Md.
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William Harris,

GUNS AND PISTOLS,
With large assortment of
SPORTSMEN'S GOODS.
Guns neatly Stocked and
Repaired at
No. 116 PRATT STREET,
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EDWARDS' PILE MEDICINE
Cures **ULCERATED, BLEEDING, ITCHING** and **BLIND PILES** in a few days. First application gives relief. Try it and be cured. Price \$1 per bottle. Can be sent by express.
For sale only by
E. G. EDWARDS,
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Baltimore, Md.
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Seasonable Agricultural Implements & Machinery.

R. SINCLAIR & CO.,

62 LIGHT ST., BALTIMORE, MD.

MANUFACTURERS OF ALL KINDS OF

FARM MACHINERY

AND

Agricultural Implements

AND GROWERS AND IMPORTERS OF

GARDEN AND FIELD SEEDS, &c.,

Offer for sale a large stock of

*LABOR-**SAVING** IMPLEMENTS AND MACHINERY,*

Including in part, as particularly suitable for the coming Harvest,

The "Advance Mower" or "Improved Monitor,"

The simplest, strongest and most efficient Mower in the country.

**The "New Yorker" Self-Rake Reaper and Mower
and Reaper only.**

Reapers of the most approved and Improved Patterns always
on hand.

Ithica Sulky Self-Discharging Hay and Grain Rake, the best in use.

"Philadelphia" Hand and Horse Mowers,

Rogers' Patent Harpoon Horse Hay Rake.

"Buckeye" Sulky Cultivator, for Corn, Tobacco and Cotton.

SINCLAIR'S SOUTHERN IRON BRACE GRAIN CRADLES.

HAY TEDDERS, most approved patterns.

THOMAS' SMOOTHING HARROWS, for cultivating Corn, &c.

Also an unusually large and varied stock of well known and thoroughly
tested **MACHINES and IMPLEMENTS**, which we guarantee to give
satisfaction to Farmers and Planters.

R. SINCLAIR & CO.,

62 Light Street, Baltimore.

THE AMERICAN FARMER

THOS. NORRIS & SON,
MANUFACTURERS AND DEALERS IN
Agricultural Implements
Field and Garden Seeds, Fertilizers, &c.

Would call special attention to the following first-class Machines, &c.:

Westlinghouse Threshers and Cleaners.

Aultman & Taylor's Threshers and Cleaners.

Lever and Railway Horse Powers—most approved.

Van Wickle Wheat Fan. Price \$37.

American Cider Mill and Press—the best—\$40.

Our new Acme Plough.

Bickford & Huffman Grain Drills,

Plows, Harrows, Cultivators, Straw Cutters, Corn Shellers, and all kinds of Farming
Tools. Fresh Field and Garden Seeds, Pure Ground Bone and other Fertilizers.

CUCUMBER PUMPS,

WITH PORCELAIN LINED IRON CYLINDERS.

We are prepared to furnish, wholesale and retail, the best and cheapest Cucumber Pumps
in the country, to suit all purposes, from the small cistern to the deepest well.

Send for Descriptive Circular and Price List.

THOMAS NORRIS & SON,
141 Pratt st., Baltimore, Md.

For Harvest, 1873.

W. A. WOOD'S WORLD-RENOWNED

SELF RAKE REAPER,

WITH AND WITHOUT MOWING ATTACHMENT.

W. A. WOOD'S MOWING MACHINES,

Universally acknowledged as good as, if not superior to, any others in use. The above Ma-
chines have taken more FIRST PREMIUMS in this country and in Europe than any other
Reaping and Mowing Machines extant. Send for Descriptive Circulars. For sale by

THOMAS NORRIS & SON, Agents,

141 Pratt street, Baltimore, Md.

may-1y

ADVERTISING SHEET.

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C. W. BURGESS & SON,
No. 166 North Gay street, Baltimore,

DEALERS IN
MEXICAN AND PERUVIAN GUANO,
Phosphates, &c., and
FERTILIZERS OF ALL KINDS.

✦ Mexican Guano a Specialty,

Which they offer for sale at the lowest market rates. From the satisfaction expressed as to the quality of the Fertilizers furnished by us we feel confident that we can give the purchaser the full value of his money. Give us a call before purchasing.

✦ Country Produce bought and sold.

✦ ALSO, GROCERIES OF ALL KINDS. feb-1y

Short-Horns FOR SALE.

Having largely increased my herd by recent purchases and importations, I am now prepared to fill orders for **BHOOTHORNS** of either sex. I am now using in my Herd the "Bates" Bull "Sixth Earl of Oxford" 9984; the pure Booth Bull "Royal Briton" (27.351); the Booth Bull "Lord Abraham" 11,233; the Princess Bull Lord Mayor 6,969. This gives me a combination of the best **SHORTHORN** blood in the world. I have Calves the get of Fourth Duke of Geneva 7,931; Plantagenet 8,795 Salamander 9,046, &c., &c., &c.

I also breed **BERKSHIRE PIGS**, and have some very superior young Pigs for sale. I can ship animals to any part of the country with ease, as my farm is on the Washington Branch of the Baltimore and Ohio Railroad, 15 miles from Washington and 25 miles from Baltimore, and all way trains stop directly at my place. Royal Briton will serve a few cows other than my own at \$250 each—no charge for keep. I shall be pleased to show the stock to all persons interested. Send for catalogue to

CHAS. E. COFFIN,
Muirkirk, Prince George's co., Md.

FERRETS FOR SALE.

Ferrets, for Rat catching, from imported stock, price \$10 each, or \$20 per pair, boxed and delivered at Express Office. Apply to

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AGENTS WANTED

For the Beckwith Sewing Machine, in every county in Eastern Pennsylvania, Southern New Jersey, Maryland and Delaware. Address

AVERILL BARLOW,
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SMITH & CURLETT,
Steam Soap and Candle Works,
PERFUMED CHEMICAL OLIVE SOAPS,
ADAMANTINE & TALLOW CANDLES.
Cor. Holliday and Pleasant Sts.,
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GUANO! GUANO!!

We have constantly on hand a No. 1 **GUANAPEPERUVIAN GUANO**, which we offer for sale in lots to suit purchasers, at Agents' Warehouse at Point or uptown.

Bone Dust and Bone Flour,

which, by analysis, is the best bone offered for sale in this market.

AA, A, B & C MEXICAN GUANO,

which we offer for sale at low prices.

Give us a call before purchasing.

ROBT TURNER & SON,

43 and 46 S. Frederick St.

FIELD SEED of best quality always on hand. feb-1y

VIRGINIA LANDS.

UPPER JAMES REAL ESTATE AGENCY,
BY WILLIAM HOLMAN,
CARTERSVILLE, Va.

Who offers for sale upwards of 12,000 acres of Land, lying in one of the most desirable regions of Eastern Virginia.

Catalogues sent on application. my-1f



M. PERINE & SONS,

Manufacturers of

Flower Pots, Stone and Earthenware,

Also, FIRE BRICK for COAL STOVES.

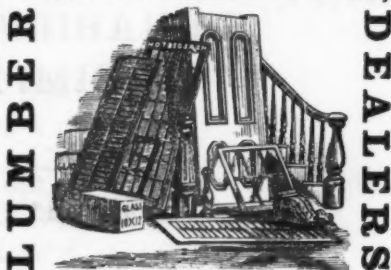
POTTERIES and SALES ROOM,

No. 711 & 713 W. BALTIMORE ST.

Baltimore, Md.

Fowl Fountains of all sizes always on hand. mar-12t

Jno. W. Wilson & Sons,



AND MANUFACTURERS OF

Sashes, Doors, Blinds, Mouldings, Brackets,
Handrails, Newels, Balusters, and other
Building Materials—on hand at reduced prices.

333 SOUTH EUTAW STREET,

Corner Cross st. [sep 1y] BALTIMORE, MD.

Grape Vines For Sale.

Concords, 3 years old, now bearing, 8 to 10 ft.	\$25 per 100
Concords, 2 years old.	15 per 100
Concords, 1 year old.	10 per 100
Rogers' No. 19 (a very fine Grape), finely grown.	25 per 100
Clintons.	15 per 100

Address E. A. H.,
Care Editors American Farmer, Baltimore

THE AMERICAN FARMER

GROVER & BAKER SEWING MACHINE COMPANY

**17 N. Charles Street,
BALTIMORE, MD.**

Buy one of their improved
“LOCK STITCH” or “ELASTIC STITCH”
Sewing Machines,

THE VERY BEST IN USE.

They combine the elements of

**BEAUTY,
DURABILITY,
SIMPLICITY AND
USEFULNESS.**

Either style embodies all the latest and most useful attachments and improvements.

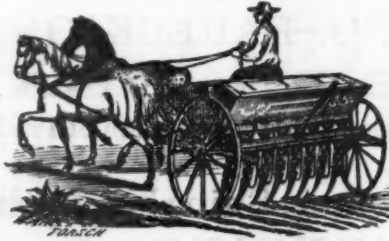
The Grover & Baker Sewing Machine Company,

Is the only Company that afford the purchaser a Choice of Stitch.
They make Two Distinct Machines,

“Elastic” and “Lock-Stitch.”

**SALESROOMS,—17 N. CHARLES STREET,
BALTIMORE.**

THE



BEST.

KELLER PATENT GRAIN, SEED AND FERTILIZER DRILL.

We call the especial attention of all desirous of purchasing a drill this season to the above, and assure them that it is as its name implies—"The Best."

We claim for it Superiority—1st. In point of operation, being perfectly accurate in the distribution of Grain, Seed and Fertilizers. 2d. In principle of Construction. 3d. In Material. 4th. In Finish. 5th. In Simplicity and Ease of Management. 6th. In Durability.

It has the "Keller Patent Sowing Arrangement," which is the only perfect force-feed made, and sows any quantity of Seed desired to the acre with accuracy.

Has Spring Hoes, and drills among stumps, stones, roots, and rough and uneven ground without interruption in its working arrangement, and with equal regularity under all circumstances.

Is regulated to sow either shallow or deep, and changeable by Lever, either straight or zig-zag, while in motion. The Patent Axle renders it the most steady and easiest running Drill, and it is at the same time self greasing.

The Guano Attachment is perfect in every respect, with Reverse Feeders and Stirrers, works with perfect accuracy and guaranteed not to choke, adhere or pack. Grass Seed Attachment is placed behind the drill and hoes, hence no interference with the even distribution of the seed.

We solicit an examination of this Drill by all who intend buying.

Have also the Empire Thresher and Cleaner, with most approved Sweep Power, for 6, 8 and 10 horses. Steam Threshers and Portable Engines, Double-gear'd Railway Powers with Patent Governor; Combined Peerless Thresher and Cleaner. Also, Hickok Patent Portable Cider Mill and Presses, Hutchinson's Wine Mill and Press, Agricultural Machinery and Implements generally, Field and Garden Seeds, Fertilizers, &c.

GRIFFITH, BAKER & BRYAN,

41 & 43 N. Paca Street, Baltimore, Md.

sep-6

JOHN D. HAMMOND.

HENRY A. ANTHONY.

JOHN D. HAMMOND & CO.

**Saddle, Harness, Trunk and Collar
Manufacturers,**

WHOLESALE AND RETAIL.

**361 W. Baltimore Street, opposite "Eutaw House,"
BALTIMORE.**

sep-17

Whitelock's Vegetator!

CONTAINING IN A SOLUBLE CONDITION,

**Every Element Necessary to the Growth of the Plant and the
Formation of the Grain.**

ALWAYS UNIFORM IN QUALITY—ALWAYS IN A CONDITION FOR DRILLING.

☞ All we desire is a trial of the "Vegetator" by the side of any other manure which can be produced.

W. WHITELOCK & CO.,

44 South Street, Baltimore

sep-18

THE AMERICAN FARMER

**V. O. EARECKSON,
LUMBER DEALER,**

West Falls Avenue, first Yard South of Pratt St. Bridge.

**Building Lumber, Shingles, Laths, Palings,
FENCING, &c.**

LIME, BRICKS, SASH, DOORS AND MILL WORK,

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AT THE LOWEST PRICES.

Important!
PORTABLE GAS! PORTABLE GAS!

Kuster's Non-Explosive Gaslight Fluid!

Cheapest, Safest and best Light in the World, giving a light equal to Coal Gas at the cost of one-half cent per hour! The lighting of CHURCHES, HALLS and STORES a SPECIALTY. The **Petroleum Fluid Stove** is found superior in the satisfactory and rapid manner in which it does its work—always ready and under momentary control. For Broiling Steak, Fish or Game it is unsurpassed. For Baking of Bread, Cakes and Pies, no oven with any other fuel in the world equals it. *Call and see for yourselves.*

C. F. KUSTER, { Successor to F. G. PALMER, and
late U. S. Portable Gaslight Co.,

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No. 9 South Gay street, Baltimore, Maryland

**CANFIELD, BRO. & CO.
WATCHES,
DIAMONDS AND RICH JEWELRY,
SILVER AND PLATED WARE,**

**American, English and Swiss WATCHES,
GOLD, JET, TORTOISE SHELL, CORAL AND VULCANITE
JEWELRY.**

**CLOCKS AND BRONZES, LEATHER GOODS,
Fans, Opera Glasses and Fancy Goods.**

THE LARGEST HOUSE IN THE CITY.

PREMIUMS FOR AGRICULTURAL FAIRS FURNISHED.

BADGES AND MEDALS FOR COLLEGES AND SCHOOLS A SPECIALTY.

WATCHES CAREFULLY REPAIRED.

CANFIELD, BRO. & CO.,
Corner Baltimore and Charles streets, Baltimore, Md.

july-1y



PENNSYLVANIA Agricultural Works, YORK, Pa.

A. B. FARQUHAR,
MANAGER AND PROPRIETOR.

The Pennsylvania Agricultural Works is one of the most extensive establishments of its kind in the United States. It is furnished with improved Machinery, Foundry, Forging Rooms, Planing and Sawing Mills, Lumber Yard, &c., complete within itself. It is situated among the great Iron, Coal and Lumber fields, which form the basis of all manufacturing; and I would respectfully call the attention of the public to these advantages, confident of meriting an extended patronage.

The following are among the specialties:

**AGRICULTURAL STEELS, PLOWS, CULTIVATORS, HORSE
RAKES, PLOW HANDLES, THRESHING MACHINES,
HORSE POWERS. &c.**

HORSE POWERS.

The Horse Power is one of the most important implements, and probably the most difficult to keep in order; too much care, therefore, cannot be used in selecting the very best.

I have long made the manufacture of Horse Powers a specialty, and can safely recommend my improved Iron Geared Powers to be all that I claim for them.

FARQUHAR'S CLIMAX HORSE POWER,

For Threshing, Ginning and General Farm Use,

ranks first; being the result of many years' labor, "practice with science," and the expenditure of thousands of dollars in experimenting.

It is remarkable for its light draft, simplicity, great strength and durability. It is fitted up with as much care as a piece of cotton machinery or steam engine, and will last as long. The rule, the "best is the cheapest," applies with special force to Horse Powers.

THE PELTON OR TRIPLE GEARED IRON POWER.

This well known power is noted for its strength, cheapness and general efficiency. Like the Climax, the gearing is all secured in an iron frame, and is uninjured by the weather. The pinions are made of chilled iron, and no pains are spared to make it a first-class, cheap power.



Improved Railway Horse Powers, Threshers and Separators,

Have been a specialty with me for many years, and those who favor me with their orders may rely upon getting a machine which will run as light, waste less grain, and give more general satisfaction than any offered.

PLOW HANDLES.

Having improved Blanchard machinery for the manufacture of Plow Handles upon an extensive scale, I can supply first quality Handles, side bent to order for any pattern of plow.

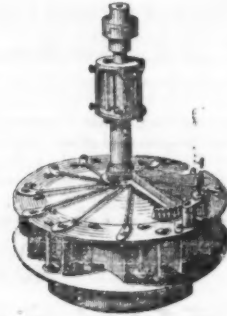
For further particulars, address

July

A. B. FARQUHAR, York, Pa.

THE BAB COCK
 AND **WILCOX**
 PATENT SAFETY STEAM
 BOILERS.
LEFFEL'S
 AMERICAN DOUBLE
 WATER WHEEL.
 PORTABLE AND STATIONARY
 STEAM
 ENGINES & BOILERS
 SAW & GRIST MILLS
 MILL GEARING, SHAFTING, PULLEYS
 & HANGERS, MANUFACTURED BY
POOLE & HUNT,
 Send for Circulars { BALTIMORE, MD

Power Pledged Equal
 to any Overshot.



OVER 6,000

Now in Use.

oct-1y



CHILDREN'S CARRIAGES

Of every description, from highest to lowest prices, of most beautiful finish. Also, TOYS and FANCY GOODS.

No. 224 West Baltimore street.

GEO. W. MOWBRAY.

Also,
Dr. Hampton's Vegetable Tincture,
 For the cure of all Chronic Complaints. See certificates of cures at principal office,

No. 224 W. Baltimore street, 3 doors east of
 Charles street,

oct-3t

GEO. W. MOWBRAY.

TREES AND PLANTS.

ROSEBANK NURSERIES,

Govanstown, Balto. co., Md.

We invite the attention of Planters and Amateur Cultivators, to our complete stock of the following :
 PEARS, Standard and Dwarf.

APPLES, Standard and Dwarf.

CHERRIES, Standard and Dwarf.

PEACHES, PLUMS, and GRAPE VINES, together with other SMALL FRUITS of popular kinds.

ORNAMENTAL TREES, EVERGREENS and SHRUBS, with ROSES in great variety. A large stock of choice GERANIUMS, VERBENAS, and other bedding out plants.

75 to 100,000 two and three year old OSAGE

ORANGE HEDGE PLANTS.

ORDERS by mail promptly attended to.

Catalogues forwarded on application.

sep-tf

W. D. BRACKENRIDGE.

FERTILIZERS.

STRICTLY PURE GROUND BONE,

Muriate Potash, Sulphate Potash, German Potash Salts,
Nitrate Soda, Salt Cake, Nitre Cake, Sulphate Soda, Sulphate of
Ammonia, &c.

**OIL VITRIOL & CHEMICALS FOR MAKING
SUPERPHOSPHATES AND FERTILIZERS.**

R. J. BAKER & CO.,

jan-1y

Nos. 36 & 38 S. Charles st., Baltimore, Md.

ORCHILLA GUANO, AA,

A TRUE BIRD GUANO,

Rich in Phosphates and Alkaline Salts,

From Orchilla Island in the Carribbean Sea, belonging to Venezuela, Lat. 11° 50' N., Lon. 68° 14' W

Packed in Good Bags, 167 lbs. each, 12 to the Ton,
\$30 per Ton, Cash.

B. M. RHODES & CO., Agents for the Sale of Orchilla Guano,

Office, 82 SOUTH ST., below Corn Exchange,
BALTIMORE.

july-1y



We will purchase and have carefully shipped, by whatever mode of transportation may be designated:

FERTILIZERS of every description sold in this market—and there is, probably, no other city in the Union which offers better facilities for this purpose. We will buy, and deliver from the Peruvian Agent's Warehouses, whenever the order is sufficiently large to warrant it,

PERUVIAN GUANO,

Of the Chincha Island and Guanape brands; the various **PHOSPHATIC GUANOS** imported into this port; **BONE DUST** from the best manufacturers of this vicinity, or the cheaper kinds from a distance, as may be ordered by the purchaser;

Land Plaster, Oil Vitriol, and all Chemicals Required

In the manufacture of **HOME MANURES** or **SUPERPHOSPHATES**, from the most reliable factories.

FRUIT and ORNAMENTAL TREES, SHRUBBERY, Field, Garden and Flower **SEEDS.**

All kinds of **AGRICULTURAL IMPLEMENTS** and **MACHINERY** at manufacturers' prices. Likewise,

Cattle, Horses, Sheep, Pigs, Poultry, &c.,

Of the improved breeds. In this vicinity, in some particular kinds of stock, a better selection can be made than elsewhere, and special attention will be given to buying and forwarding such animals as may be ordered.

TERMS CASH (or its equivalent.)

SAML. SANDS & SON,

No. 9 North st., near Baltimore st., Baltimore, Md.

THE AMERICAN FARMER

WASHINGTON LIFE INSURANCE CO.
OF NEW YORK.



CYRUS CURTISS.....PRESIDENT.

Assets January 1, 1873..... \$3,426,203 27

Liabilities—Cash reserved for Policies,
\$2,913,102 00

Liabilities for claims due, 70,141 74 2,983,243 74

SURPLUS..... \$442,959 53

PLAN OF BUSINESS.

Premiums required in Cash.

Dividends are non forfeitable and are paid in Cash.

Assets are held in Cash.

Policies are paid in Cash.

The first question for a prudent man to ask, in determining the merits of an Insurance Company, should be: is it trustworthy and responsible? The entire history of this Company has shown that its solidity is unquestioned; no imputation to the discredit of its management having ever been uttered.

DAN'L GRANT EMORY,

Manager for Maryland and District of Columbia,
my-ly 32½ ST. PAUL STREET, BALTIMORE, MD.

IMPORTANT TO FARMERS.

J. G. HEWES'

Ammoniated Bone Super-Phosphate of Lime,

Manufactured and Sold by JOHN G. HEWES,

Office and Warehouse, 370 WEST PRATT ST., BALTIMORE, MD.

Also, PERUVIAN GUANO, and Bones of all grades.

B. T. HYNSON & SONS,

Paper Hangings and Window Shades,

WINDOW AWNINGS, MOSQUITO AND FLY-NETS.

Wall Papers and Window Shades of all grades and styles. Workmen sent to all parts of the country. Just received a choice assortment of different styles. Venitian Blinds made and repaired.

B. T. HYNSON & SONS,

sep-ly

No. 54 N. Howard Street, Baltimore, Md.

LEWIS TUDOR & CO.,
No. 44 LIGHT STREET,

Third door below Lombard st.,

BALTIMORE, MARYLAND,

COMMISSION MERCHANTS for the sale of GRAIN, BUTTER, EGGS, CHEESE, Green and Dried FRUITS, Vegetables and Country Produce generally. Also, an assortment of reliable FIELD AND GARDEN SEEDS constantly on hand. Consignments solicited and prompt returns made.

mar-ly

EDW'D J. EVANS & CO.,

YORK, PENNA,

Fruit and Ornamental Trees,

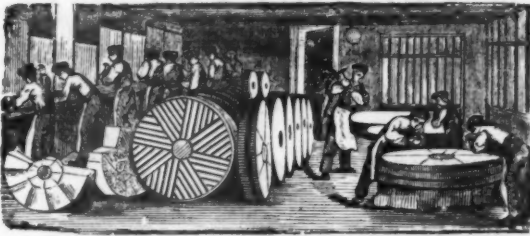
FIELD AND GARDEN SEEDS,

AND

HORTICULTURAL GOODS.

CATALOGUES MAILED TO APPLICANTS. aug-54

ADVERTISING SHEET.



MORRIS & TRIMBLE,

Proprietors of the old original

**Baltimore Burr Mill-
stone Works,**

Established 1815,

Importers, Manufacturers and Dealers
in

**French Burr and other
MILLSTONES.**

BOLTING CLOTHS,

Best quality **ANKER BRAND**, by the piece or cut to order, and sent by express to any Station on Steamboat or Railroad lines. **SMUT MACHINES, BELTING** and Mill Furnishing Goods generally.

**WEST FALLS AVENUE,
NEAR PRATT STREET BRIDGE.**

ap-12t

MORO PHILLIPS'

GENUINE IMPROVED

SUPER-PHOSPHATE OF LIME.

STANDARD GUARANTEED.

Reduced in price, and improved in quality by the addition of Potash. This article is already too well known to require any comments upon its Agricultural value. Thirteen years' experience has fully demonstrated to the agricultural community its lasting qualities on all crops, and the introduction of Potash gives it additional value.

PRICE \$50 PER TON, 2000 LBS. Discount to Dealers.

PURE PHUINE.

SUPERIOR TO PERUVIAN GUANO. Patented April 29, 1860. Manufactured by MORO PHILLIPS.

PRICE \$50 PER TON, 2000 LBS. Discount to Dealers. For sale at Manufacturer's Depots:

**110 S. DELAWARE AV., Philadelphia, Pa.
95 SOUTH STREET, Baltimore, Md.**

And by Dealers in general throughout the country. Pamphlets mailed free on application.

ap 1y

MORO PHILLIPS, Sole Proprietor and Manufacturer.

BALTIMORE

RETORT AND FIRE BRICK WORKS.

GEORGE C. HICKS & CO.

MANUFACTURERS OF

CLAY RETORTS, TILES, FIRE BRICK,

VITRIFIED STEAM-PRESSED

Drain and Sewer Pipe, Stove Lining, &c.

ap-1y

Manufactory, Locust Point, Balto. Office, 4 S. Holliday St.

DANA BICKFORD'S

NEW IMPROVED

FAMILY KNITTING MACHINE

Perfection in work and simplicity of construction have been attained in this Machine. It knits both circular and flat web with perfect selvage edge, making a perfect hand-stitch. It narrows and widens; knitting heels and toes of stockings to perfection, with ribbed or plain stitch, and is a Crocheting as well as Knitting Machine. It makes all the intricate fancy stitches of the crocheting-needle better than hand-work. It is so simple that a child can operate it, and the rapidity of its work is truly wonderful—20,000 stitches per minute.

This Machine has carried the **FIRST PRIZE** at the Maryland State Fair, Maryland Institute, and Virginia State Fair, this Fall, and was the principal attraction at all of them. They are more valuable in the family than the Sewing Machine. Price, \$25 and \$35. Send for Circulars. Agents wanted in every part of Maryland. Liberal terms. Address

J. A. HAMILTON, General Agent for Maryland,

may-1f

47 NORTH CHARLES STREET, Baltimore.

THE CHAMPION

EARTH CLOSET.

Having selected the new **CHAMPION** as being the very best and cheapest Earth Closet made, and accepted the Agency of it, I am now ready to furnish the public with 5 styles.

No farmer or person living in villages can afford to be without the Earth Closet. Looked at in the light of convenience, comfort and economy, it is far beyond the water closet, having all the advantages of the city water closet and none of its disadvantages, being perfectly without odor.

Send for Price List and Circular to

J. A. HAMILTON,

47 N. Charles street,

may-1f

BALTIMORE.

THE AMERICAN FARMER

**FRUIT, SHADE AND ORNAMENTAL
TREES, VINES, PLANTS, &c.
AT PRICES LOWER THAN THE LOWEST.**

APPLE TREES, 5 to 8 feet,

Of best varieties, suited to climate of the South—10 cents each, \$9 per 100.

Standard Pear—\$30 per 100. **Plums**—\$20 per 100.

Apricots—all extra fine stock—\$15 per 100.

Cherry, Nectarine and Orange Quince Trees.

Raspberry, Strawberry and Gooseberry Plants.

A No. 1 stock of Houghton Gooseberry at \$30 per 1000.

Currants, Grape Vines and Rhubarb.

An immense stock of Conover's ASPARAGUS at \$3 per 1000.

Shade Trees, Evergreens and Flowering Shrubs in great variety, at prices too low to publish.

APPLE SEEDLINGS—1 year No. 1, \$4 per 1000.

MAZZARD CHERRY SEEDLINGS—1 year Extra, \$7 per 1000.

Together with many other Seedlings and Novelties—to learn more of which send for "Price List"—free to all.
oct-3t

J. W. KERR, Denton, Caroline Co., Md.

Save Twenty Per Cent. by Buying

GUNS,

BREECH AND MUZZLE LOADING,

Selected by one of our firm in Europe from most reliable manufacturers,
GUARANTEED TO GIVE SATISFACTION,

FROM

POULTNEY, TRIMBLE & CO.,

IMPORTERS,

No. 200 W. BALTIMORE STREET, Baltimore, Md.

Send for DESCRIPTIVE PRICE-LIST.

oct-3t

STRATTON'S

GENTS' FINE FURNISHING GOODS.

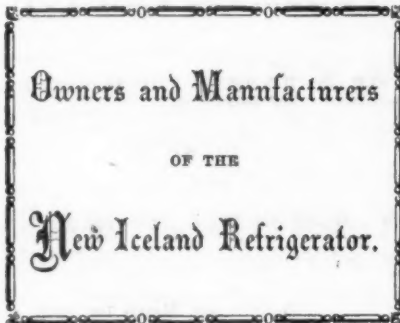
DRESS SHIRTS A SPECIALTY.

No. 161 WEST BALTIMORE STREET,

Four doors above the old stand and two doors below Noah Walker & Co.'s,

oct-1y

BALTIMORE, MD.,



HOUSE FURNISHING GOODS

FORWARDED AND PACKED
WITH
GREAT CARE
BY
SAMUEL CHILD & CO.,
20 N. CHARLES ST.

Importers of CHINA, GLASS, TABLE CUTLERY,
FAMILY HARDWARE, PLATED GOODS,
and Dealers in TIN, WOODEN and JA-
PANNE, WARE and KITCHEN
FURNITURE of every
character.

WATER COOLERS of our own make. ICE-CREAM
FREEZERS of the most approved kinds. PATENT
ICE PITCHERS, all qualities, and each warranted to be
as represented.

New and Beautiful Patterns of
ENGLISH, FRENCH AND AMERICAN
TABLE GLASSWARE.
WHISKEY, BRANDY AND
WINE DECANTERS,

SINGLY AND IN SETS.

BOWLS, DISHES, CELERY STANDS, &c.

Our arrangements made in person with the leading
manufacturers in Europe and this country, and having
resident agents in France and England, give us every
advantage in obtaining our supplies; manufacturing
the common class of goods, such as

TIN AND JAPANNED WARE;

Buying entirely for cash; with a thorough knowledge of
the business in all its details; purchasers may rest as-
sured that we can and will supply their wants as favor-
ably and upon as good terms as any house in New York
or elsewhere.

We respectfully solicit a visit and an examination
goods and prices. ap-ly

MONUMENT IRON WORKS.

DENMEAD & SON,

Corner North and Monument Sts., Baltimore, Md.

MANUFACTURERS OF STATIONARY AND PORTABLE

Steam Engines & Boilers

Of all Sizes.

DAVID'S PATENT PULVERIZING MILLS, for Guanos, Bones, Ores, Clays; also
Flour Making.
SEND FOR CIRCULAR.

ap-ly

THE AMERICAN FARMER

ESTABLISHED 1839.

TO FARMERS, PLANTERS and GARDENERS!

PURE GROUND BONE,

MANUFACTURED BY

JOHN BULLOCK & SON,

P. O. Box 636. Washington Road, Balto., Md.

PACKED IN BARRELS OR BAGS, \$45 PER TON.

For the past thirty years we have been engaged in the manufacture of PURE GROUND BONE, our crude stock being gathered daily from the Butchers here, with whom we have yearly contracts. Having recently added additional and improved machinery, we are now prepared to fill all orders in our line with promptness and despatch. Would respectfully call attention to the annexed certificate :

BALTIMORE, March 1st, 1873.

Messrs. JOHN BULLOCK & SON, Baltimore, Md.

Gents—The following is the result of an analysis of your Ground Bone:

	PER CENT.
Moisture determined at 212° Fahrenheit.....	5.44
Organic Matter.....	39.16
Containing Nitrogen, 4.47 per cent., equal to Ammonia, 5.42 per cent.	
Inorganic Matter.....	55.40
Containing Phosphoric Acid, 22.15 pr cent., equal to Bone Phos. of Lime, 48.35 per cent.	
Alumina, Oxide of Iron, and Carbonate and Fluoride of Lime not determined.	
Insoluble Residue, 3.61 per cent.	
	100.00

I am pleased to state that this is one of the richest and most available forms of Phosphate of Lime and Ammonia that can be found for agricultural purposes. The per centage of valuable ingredients named is in excess of the generality of fertilizers now being offered for sale.

Respectfully, &c.,

P. B. WILSON,

oct-1y

Analytical and Consulting Chemist.

ADVERTISING SHEET.

TIMOTHY SEED, SEED-WHEAT, CLOVER, &c.

T. W. LEVERING & SONS,
Commission Merchants and Dealers in Field Seeds,
No. 55 Commerce Street, Baltimore, Md.,
Keep on hand the best varieties of Seed-Wheat; also, Clover, Timothy
and Orchard Grass Seeds, &c.

sep-3t

T. W. LEVERING & SONS.

A. E. WARNER,
Manufacturer of
Silver Ware, Rich Jewelry,
Watches, Diamonds, Jewelry, Silver Ware.

Importer and Dealer in
Diamonds, Fine Watches, Silver Plated Ware, Table Cutlery,
Fancy Articles, &c.

No. 135 W. BALTIMORE STREET, BALTIMORE, MD.
FINE BRONZES AND OPERA GLASSES. SOLID SILVER WARE OF OUR OWN
je-1y MANUFACTURE.

HARRINGTON & MILLS,

No. 140 BALTIMORE STREET, BALTIMORE, MD.

Manufacturers and Importers of

Fine Furniture, Looking Glasses, Gilt Frames, Curtains and Draperies.

We call particular notice to our large stock of **CANE FURNITURE**, embracing
Chairs, Tables, Lounges, &c., &c.; being particularly suitable for country residences,
and adapted, from its lightness and coolness, for Southern latitudes.

A large stock of Fine Furniture constantly on hand and made to order. je-1y.

MARYLAND BRITANNIA
AND
GOLD AND SILVER PLATE WORKS.
ESTABLISHED 1850.

W M. HOLMES,
SALES ROOM.....No. 3 NORTH CHARLES STREET.
Office and Factory, Nos. 50 and 52 Holliday street,
BALTIMORE, MD.

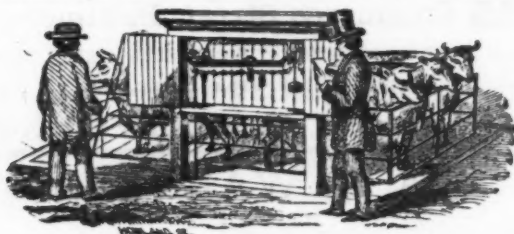
Repairing and Replating done so as to look equal to new ware.

may-1y

THE AMERICAN FARMER

STANDARD SCALES.

FAIRBANKS'



HAY, STOCK & CATTLE SCALES

CAUTION!

The well-earned reputation of our SCALES has induced the makers of imperfect Balances to offer them as "Fairbanks' Scales," and purchasers have thereby, in many instances, been subject to fraud and imposition. If such makers were capable of constructing good Scales they would have no occasion to borrow our name.

BUY ONLY THE GENUINE FAIRBANKS' STANDARD SCALES

STOCK SCALES, COAL SCALES, HAY SCALES, DAIRY SCALES,
PLATFORM SCALES, COUNTER SCALES, &c.

FOR SALE ALSO, ALARM CASH DRAWER

Till-Tapping Prevented!

EVERY DRAWER WARRANTED!

EVERY MERCHANT
SHOULD USE THEM.



Sold at all Fairbanks' Scale Warehouses.

FAIRBANKS & CO.,

No. 166 West Baltimore Street, Baltimore, Md.

sep

JOSHUA THOMAS,

DEALER IN

**FRENCH BURR, ESOPUS, and other
MILL STONES, BELTING,
SMUT MACHINES AND MILL MA-
CHINERY, etc.**

Prices Low and Goods Unexcelled.

Parties in want of **MILL FURNISHING GOODS** will consult their interest by sending for my Price List before purchasing elsewhere.

Also General Agent for the World Renowned

**BUCKEYE MOWER AND REAPER,
Sweepstakes Thresher and Cleaner,
HAGERSTOWN WHEEL HORSE RAKE, CLOVER
HULLER, &c.**

nov-6t

No. 35 North street, Baltimore, Md.

ESTABLISHED 1856.

LARMOUR & CO.,

DEALERS IN

**GOLD & SILVER WATCHES,
RICH JEWELRY, SOLID SILVER WARE,
Triple Plated Ware, Clocks, Bronzes, &c.**

Agents for the American Watch Co. of Waltham.

In our stock can be found **WATCHES** from the most celebrated makers of Europe as well as from the widely known **AMERICAN** factories; **JEWELRY** of every description, in

DIAMONDS, PEARLS, CAMEOS, &c.

SOLID SILVER WARE of choicest styles, suitable for Wedding Presents and for Prizes for Agricultural and Horticultural Societies; **SILVER PLATED WARE** of the best manufacture; **Fine Table Cutlery, &c.**

Also Agents for the celebrated "**DIAMOND**" **SPECTACLES** and **EYE-GLASSES**, the most perfect in the world.

(Sign of the Big Clock.)

LARMOUR & CO.,

195 W. Baltimore street, Baltimore, Md.

 **WATCHES** and **JEWELRY** repaired in the best manner, and warranted.

may-1y

THE NEW LIGHT-RUNNING
"HOWE"



SEWING MACHINE

HAS JUST BEEN AWARDED THE

Highest Premium!

AT THE

Vienna Exposition,

FOR ITS SUPERIOR SEWING AND STITCHING!

GENERAL OFFICE FOR THE STATES OF

MARYL'ND, VIRGINIA, NO. CAROLINA, SO. CAROLINA:

38 N. Charles-st.

BALTIMORE, MARYLAND.

AGENTS WANTED in every County of the above States.

Liberal inducements and large pay to energetic men.

Wagons furnished and no Capital required.

Machines Sold on Easy Terms.